The effect on unemployment of selected changes in working time patterns

Thesis

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The effect on unemployment of selected changes in working time patterns

by

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Table of contents

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Abstract

The hypothesis, that unemployment can be greatly reduced at an acceptable economic cost to the nation by decreasing the total hours people spend at work during their lifetimes, is examined. Preferences related to work and leisure were elicited via two surveys from 1105 people below the qualifying age for State pensions and 147 people receiving the pensions in the Reading area.

It is argued that it is unlikely that unemployment will fall appreciably in future years without introducing some form of job sharing. Using the results of the surveys an analysis is carried out of the social and economic implications of introducing earlier retirement for men, and various methods of reducing the number of working days per year for men and women. Calculations show that voluntary retirement for men from the age of 60 could release about 600,000 jobs for the unemployed at a cost of about 0.2% of the 1984 Gross Domestic Product (GDP). It is suggested that most of the remaining non-structural unemployment could be eliminated by a special form of job sharing at a cost of about 2% of the 1984 GDP. Further programmes of research are proposed to investigate specific aspects of the recommended policies which have evolved from this more general study.

List of tables

List of figures

Introduction

This thesis stems from my awareness in 1977 of the growing problem of unemployment over the previous decade (see figure 1) The advent of micro-processors and other technological changes, increased competition from foreign manufacturers, and the tendency for many of our export markets to seek self-sufficiency, all combined to reinforce my conviction that unemployment would remain high and possibly worsen unless special measures were introduced by the Government. (More recent events (p.168) have supported this view.) The failure of industry and the Government to create new jobs faster than the demise of old jobs, suggests that some method of sharing the existing work with the unemployed may be an answer to the problem. Therefore, in 1978 the decision was taken to investigate the hypothesis that work could be provided for many of the unemployed, at an acceptable cost to the nation, by making selected changes to the pattern of working time for all men and women. For each person the working pattern consists of a number of hours per day, a number of hours per week, a number of weeks per year and a number of years per lifetime; each of these can be changed to give a new pattern.

My enquiries revealed that trades unions and management expressed divergent views on the need for, and effects of, reduced working hours. However, the views of the working population in the U.K. were not known. To rectify this was a prime aim of my research and investigations in 1978/79 led to the selection of the following objectives:

1. To explore the acceptibility to the working population of several ways of shortening the total time spent at work.
2. To determine whether additional leisure or additional wealth has the greater utility value for the majority of people.
3. To examine the social and economic costs / benefits of selected methods of reducing the total hours spent at work during a lifetime.
4. To make policy recommendations for lowering the level of unemployment based on achievement of the three objectives above.

To obtain information on people's experience of work and their preference concerning working hours and income, two surveys were undertaken, one for those below the qualifying age for State Pensions and one for those who had retired on State Pensions. The findings from these surveys have been compared to the views of the TUC, the CBI, the UK Government and others. People's requirements for work and leisure, derived from the surveys and other sources, were used as the basis for selecting the most promising options for changing working time patterns. A critical examination of these options indicated how their introduction would reduce the unemployment problem, and the economic cost of so doing.

The plan of the thesis is as follows :-

Chapter 1 briefly reviews the changing patterns of working time over the last century. This provides a backcloth to the research and shows that the changes proposed later are but further steps in a steady progression towards more leisure for the working population. Various options for re-arranging working time are examined and this leads to the definition of the research objectives and method.

Chapter 2 describes how two questionnaires evolved, one for those below pension age and one for the retired population. It describes also how the sampling frame and method developed, and how the data were collected.

Chapter 3 analyses the results of the survey and shows how some of the results can be used to satisfy the objectives of the research.

Chapter 4 studies the problems of the older workers and the factors that may influence the age at which they choose to retire. The cost of introducing early retirement and the effect on unemployment numbers are estimated.

Chapter 5 estimates the cost and the effect on unemployment numbers of reduced hours per week, longer holidays and a four

day working week. The social implications of job sharing, the four day week and two shifts covering seven day week working are also considered.

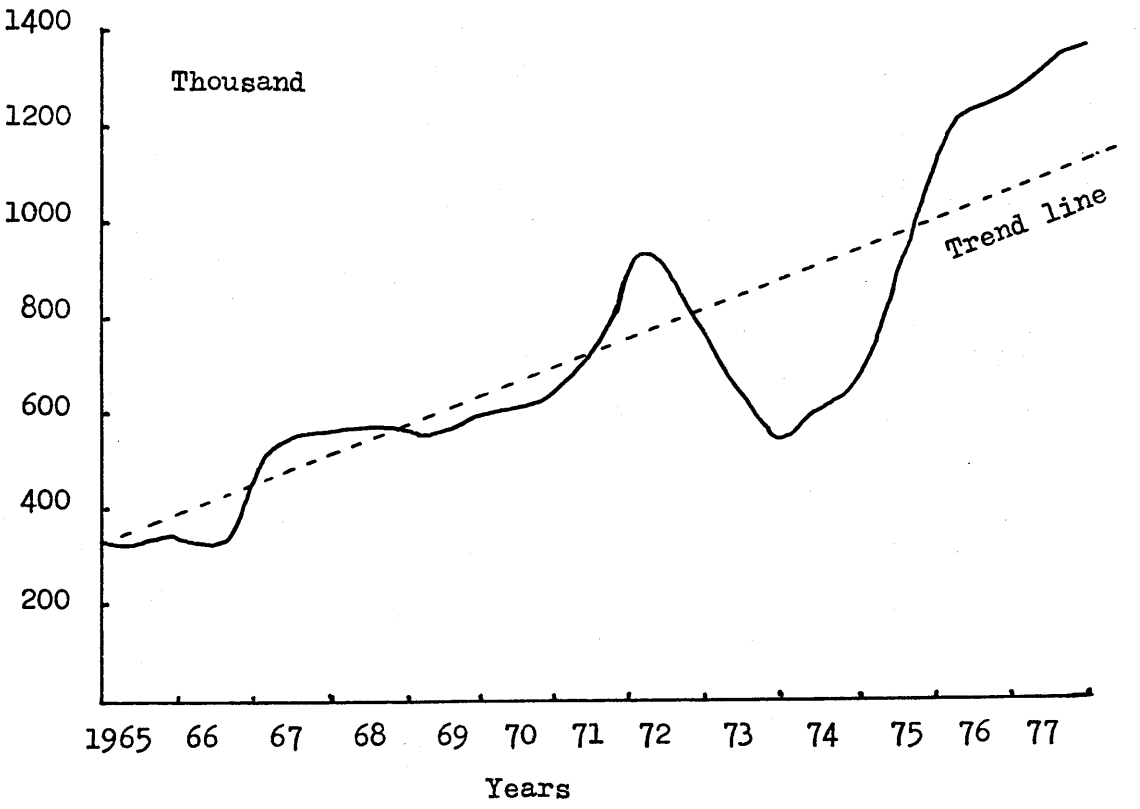
Chapter 6 reviews the current unemployment situation and the prospects for the future including the effect of new technology. Recent views of the TUC, the CBI the Government and others are also given.

Chapter 7 puts forward policy recommendations on early retirement and 4 day week working.

Chapter 8 makes proposals for further research.

Figure 1.

U.K. Unemployment Trend



Source: Employment Gazette August 1984

Chapter 1

Studies leading to the research objectives and method

WORKING HOUR REDUCTION - PAST AND PRESENT TRENDS

Trade Union publicity in the national press on the problem of the rising numbers of unemployed workers originally attracted my attention to the possibility of sharing existing jobs with the unemployed. Reduced working hours and increased pay have been main objectives of the Trade Union movement since its inception. The organisation of labour led to strikes against the long working hours which were a feature of 19th Century industrial Britain. In 1836 an 8 months strike by London engineers won a 10 hour/6 day week; an improvement on the 11 hour day then common. A 9 hour/6day week was won by engineers in the North-East in 1871 after a 5 months strike. However, not all such strikes were successful; for instance, engineers in 1897 failed to get their hours reduced to 8 hours/6 days after a 7 months strike (22).

In 1886 Thomas Mann, (14) a leading Trades Unionist, campaigned for an 8 hour day to reduce unemployment from 900K to 150K. *(p.51) This concern for the unemployed contrasts with earlier pressure to reduce working hours to improve the quality of life for those in work. He drew attention to the great wealth of Britain compared to most other industrialised countries yet there were 900K unemployed out of a total population of 36M. His arguments are as pertinent now as they were 100 years ago; they are that mechanisation should benefit all, not just shareholders, and greater efficiency should lead to reduced hours rather than unemployment.

It was not until after the first world war that the campaign to reduce the basic working week to 48 hours was successful. The general introduction of the 48 hour week during 1918 to 1922 in the U.K. was usually in the form of a 5½ day week. In the 1930s many industrialised countries introduced the 40 hour week, sometimes with wage reductions. This helped to spread the effect of the trade recession over the working population because the lower hours provided an opportunity for the creation of new jobs which were financed by the wage cuts. In

Britain, only a few firms experimented with a 40 hour (5 day/ 8 hour) week, e.g. Boots Pure Drug Co. Ltd. In 1934 Sir Richard A. S. Redmayne, Chairman of Boots, reviewed his Company's innovation of ending Saturday morning working in their factories while maintaining full pay. He concluded it to be an unqualified success both from the business point of view and from that of the employees; productivity per hour increased, absenteeism markedly decreased and expected redundancies were avoided. He writes that mechanisation has two principle effects - whilst cheapening the production of commodities it entails also a reduction in the employment of human labour, so unless accompanied by a reduction of working hours without a reduction in wages, if nationally applied, the result might not only prove grave but dangerous to the community.

In Britain the 40 hour week for all remained a pipe dream until after the Second World War. A 44 hour week was general after the war but it was only in the 1960s that a 40 hour week was well established. Although the basic working week has been reduced appreciably since then the actual reduction in hours is less as overtime increased at the same time.

Table 1. Average Working Hours Of Manual Workers

	1953	1963	1973
Basic Hours	44.4	42.2	39.8
Actual Hours	47.9	47.6	45.6
Overtime	3.5	5.4	5.8

Source: Department Of Employment Survey 1973

These figures should be compared with the Department's earlier records of actual hours worked in 1938 and 1948 of 47.7 and 46.5 respectively. These show that instead of a great reduction in working hours over 35 years there has been a change of description of some of the hours (overtime) allowing

higher pay to be obtained. The average figures, of course, mask great variations between industries as is shown by the 1977 UK figure of 47.9 hours in Cement Production and 36.8 hours in the clothing industry (172). In reply to a question in the House of Commons in November 1978, Mr H. Walker the Minister of State for Employment, stated that in April 1978: "The average weekly normal basic hours for full-time men aged 21 and over is 38.8 and for full-time women aged 18 and over is 37.0". (3). According to J. D. Hughes (165) the basic hours are therefore approaching already the current claim of the TUC for a 35 hour week and first adopted by them at the 1972 TUC Congress.

While it is expected that the downward trend in working hours will continue it is not expected that the average person would choose to do no work at all. J. Briggs (5) writes in 1962 that work gives a meaning to the lives of many people. In fact, for most of history men have been what they did i.e. a man's work has provided him with an identity. Briggs expresses the view that work is satisfying if it makes satisfying things but modern work has degenerated into labour. Machines will not ease man's burden by accident or as a by-product of commercial society as commerce creates demands for artificial necessities i.e. people are persuaded that new goods are essential to a good life style whereas, in many cases, this is not true. The burden will only be reduced by conscious efforts to use machines to reduce work and not to produce more goods. The all pervading influence of work on men's lives is indicated by reference to Maslow's hierarchy of needs (171). These might be presented in increasing level of need as (a) Physiological (b) Security (c) Belongingness and love (d) Esteem needs and (e) Self-fulfilment. His general principle is that the higher needs only motivate when lower needs are satisfied. After satisfaction of Physiological needs security is enhanced by the remuneration from work. Comradeship is often found within the working environment and is one of the great losses at retirement; the respect obtained from one's occupation is also lost at this time. Self-fulfilment from one's work is not so widely spread but craftsmen and professionals frequently get some

level of fulfilment and some workers even get fulfilment from quite mundane tasks.

Factors giving work satisfaction include completion of a whole product or task, control of working pace, variety, friendliness of colleagues, employment of skills, professional status, autonomy, responsibility, consultation about the job and working with and for people. Joint communal work in many primitive societies also provide a form of recreation through the opportunities for chatter, and singing; similarly, management of workers doing repetitive tasks often provide music and accept chatter as this gives satisfaction and results in a more stable work force. Satisfaction is reduced by insecurity, repetitive and apparently pointless tasks, and supervision that is too restrictive. In the extreme, alienation from work results and this is common with conveyor belt production methods. Alienation arises where the work seems meaningless, where one is powerless to change the content or environment associated with the work and where there is no scope for self-expression.

According to A. Day (8) in 1964 rising productivity should be used to improve human happiness at work rather than produce cheaper goods. K. Denbigh (9) suggests in his 1963 book that the desire for higher production and material advancement may slowly be replaced by a demand for a better working environment. Denbigh writes: "Surely it should be one of the important functions of industry in society that the employment it gives should be such that a man can put into his work a great deal of himself". A simplified hierarchy of work is given by (a) Job (b) Task (c) Occupation (d) Career. This is based on a job being defined as an isolated piece of work of a trifling or temporary nature (unlike the colloquial use of job for occupation), a task is work of a more continuous nature, an occupation is a series of related tasks one does to provide an income, and a career is an occupation which also satisfies the need for self-fulfilment. Too many people had their work distributed to the job end of the range and there is a great

need for migration towards the career end, i.e. few people get self-fulfilment from their work. Better education of workers and management would contribute towards this migration. Worker education should include vocational and non-vocational subjects to allow people to gain from both work and leisure; Denbigh believes they should be shown that there is more to work than one's wages.

When writing in 1893 Durkehim (4) argues that the division of labour is good for the individual in that it allows him to specialise in tasks to which he is best suited and also that the resulting higher production improves the economic strength of society. However, P. D. Anthony (1) said that specialisation led to industrialisation and its associated problems of unnatural environment, rigorous discipline, boredom, frustration urban development etc. In the past these factors, which led to mans work becoming alien to him, have been the main driving force, rather than unemployment, towards fewer hours of work.

John Newton in his presidential address to the U.S. 1964 T.U.C. provided an eloquent attack on the industrial environment: "Where work gives little or no satisfaction, where there is no freedom to exercise talent or skill, where men and women do not determine how they work, where they have become mere components in the production system, they have, during their working lives, lost their identity as individuals. Nobody who has not experienced the effects of years of confinement within the walls of mass production, without apparent means of escape, can understand the debilitating effects on the mind, the vocabulary, on the spirit of human endurance. Nobody, without this experience, can really understand why men down tools, when on the surface there seems to be only a pretext, to escape momentarily from the monotony of an unnatural existence". In his 1971 book S. Parker (6) criticises the trades unions who purport to look after the needs of the workers; they struggle to increase pay and reduce the hours of work but largely ignore the possibilities of making work a more worthwhile experience.

It now seems that the unemployment problem has become the main

driving force towards shorter hours. The Government and industry would prefer to solve the problem by job creation although there is little evidence that this route will succeed. On the other hand, the Trade Unions see job sharing as a means of reducing the social problems arising from unemployment and, at the same time, reducing the stress of those in employment by giving them more leisure.

Although during the past 150 years the working week has been reduced from approximately 70 to 40 hours the gain over a longer period of time is much less. For instance, in the 13th Century about 1 day in 3 was a holiday of some kind. The loss of leisure with industrialisation was demonstrated by Professor T. Rogers in 1884 (156). A more recent review of the history of hours of work in the United Kingdom was produced by M. A. Bienefield (80). He claims that from the time of the Black Death to the end of the 15th Century real wages increased while the number of hours of work reduced. He notes that the Elizabethan period saw the beginning of the erosion of the working man's leisure which culminated in the 17th Century with the total abolition of holidays by the Puritans. During the 18th Century real wages again increased and hours of work reduced through a shorter working day rather than through holidays. Until the Industrial Revolution most workers were self-employed and had some flexibility in setting their hours of work; this flexibility was lost as more workers became hired employees. With industrialisation came a standard day of a rigid 12 hours from 6.0 a.m. to 6.0 p.m. with two hours for meal breaks. Rebellion against the poor working conditions and long hours of work of the industrial revolution led to the growth of the Trade Union Movement. It has been Trade Union pressure on the employers that has won the shorter weekly working hours mentioned briefly above.

Besides regaining additional leisure hours each week, the Trade Union movement has gained also, annual paid holidays for its members and others. Before 1939 holidays with pay were not well established; only a few countries had this provision in their legislation and then usually it was for just one week. Now 3 to 4 weeks annual paid holiday is common in the UK with some having

even more and others getting additional pay when on holiday. In some countries long service leave is granted amounting up to a year after, say, 15 years service.

Other European countries in general have marginally lower working hours per year than the United Kingdom as shown by the following comparison :-

Table 2. Hours Of Work Of Manual Workers In The Mining, Quarrying, Construction And Manufacturing Industries And Paid Holidays For Adults In 1976

	Average Weekly hours	Public holidays	Annual holidays (working days)	Average total holidays
Netherlands	41.2	7	20-21	27½
Germany	42.3	10-13	20-26	34½
Denmark	33.6	9½	24	33½
Luxembourg	40.3	10	20-22	31
France	42.2	8-10	24	33
Italy	41.5	17-18	20-24	39½
Belgium	38.5	10	24	34
United Kingdom	42.2	8	15-20	25

Source: Hansard 14 February 1978

The increase in leisure time, whether hours per day or holidays, has mitigated the effect of greater industrial efficiency on unemployment figures. Since the end of the 19th Century the average hours worked per year have been reduced by about 30%. If additional leisure had not been given to all, this would have resulted in "enforced leisure" or unemployment being given to about 30% of the work force.

Over this period there has been also a migration of labour from primary occupations such as agriculture and fishing to secondary occupations, the manufacturing industries, and then further migration to the tertiary occupations provided by the Service Industries; the percentages in the U.K. in 1977 were approximately 3, 38 and 59 respectively, according to the Department of Employment. As the demand for farm produce became satisfied,

increasing efficiency resulted in more people entering manufacturing industries. A similar situation has occurred since 1900 resulting in an increasing percentage of people in the Service Industries as buying power became available for less essential items. The creation of new demands by the invention of cars, TV, domestic appliances etc., slowed down the latter migration but saturation with these goods is probably approaching. The demand for leisure services is expected to absorb some of the spare manpower from automation but it is unlikely to be able to provide work for all those made redundant by the micro-processor revolution.

There has been little increase in productivity in education, clerical work, etc., in the past 100 years but computer information processing capabilities may release many people from this work area. The expansion of the 'knowledge industries', which produce ideas and information has been phenomenal this century. P.F. Drucker (15) quotes figures in 1968 for the United States showing the growth of these activities. In 1900 about 10% of the US Gross National Product was devoted to this, in 1955 it was 25% and in 1965 it reached 35%. He writes that in the past this area of work has been shielded from automation but the advent of cheap microprocessors is likely to end the expansion of the number of these workers and then drastically reduce them.

With generally increasing efficiency in the Primary, Secondary and now Tertiary sectors of the economy there are no further sectors remaining to absorb the manpower available. It follows that either new demands are created which may be wasteful of natural resources, or hours of working must be reduced.

John Stansell (16) reported in 1978 on a meeting at Nice which reviewed the implications of microprocessors. As was to be expected, the meeting was divided between optimists and pessimists. The former expected a gradual displacement of people from jobs which would allow retraining for new work. However, no one appeared to query whether some of the examples given of new products people would possibly be producing was worth the alternative of more leisure. These products included home computers, electronic mail banking systems, electronic bartenders and

extensive performance diagnostic equipment in cars.

A more pessimistic view is taken by a representative of the Science Policy Research Unit of Sussex University. He believes that modernisation would mainly replace rather then complement existing industry, altering its nature and throwing people out of work. He is supported by Michael Spicer, M.P. (10) who is worried that the Government, Industry and the Unions will not react in time to the danger because of their inertia. Mr Spicer asks how one reconciles the 'Protestant Work Ethic' with the need to increase leisure, and how national income can be shared between the employed and unemployed.

The Earth Resources Research Report of 1978 (157) far from expecting a great loss of jobs, predicts a vast range of new products and services from the application of microprocessors. However, in the same newspaper Prof. T. Stonier of Bradford University is quoted as saying that the gathering and dissemination of knowledge will be the 'number one industry' in 30 years, and 10% of Britain's work-force will supply the Country's material needs. He cites the use of semi-automated mining equipment by the National Coal Board which will cut the number of miners by 90%. He predicts that the future of the coal mines will re-enact farming history where about 3% of the population produce food compared to 92% two centuries ago. Mr C. Leicester of the Institute of Manpower Studies (158) made the prediction of an increase in unemployment from 1.5M to 6.5M by the end of the century unless there is a dramatic improvement in the economic growth rate. These are but a few of the many examples from the mass media which comment on the problem and, in general, paint a pessimistic picture.

In April 1978 the private employment service, through its training and educational body and trade association, set up an Employment Think Tank to explore the nature and scale of the challenge of unemployment. Over 250 people from over 50 organisations were interviewed and invited to "make a positive contribution towards the solution of one of the greatest problems facing the world". The Chairman of the Think Tank, Mr A. E. Reed, Chairman of Reed Executive, issued a report (159) in September 1979 which included

the following conclusions. Unemployment will increase by a substantial amount in the next decade. Doubt is expressed about the wisdom of Government special employment measures which create jobs of a temporary nature whereupon, on completion, many of the participants will become unemployed as before. Higher productivity will lead to there being insufficient work for most people. People must therefore be encouraged to find new activities which will offer the social and psychological satisfaction that they currently derive from their work. These activities include further education and retraining, organised voluntary work, sport, hobbies and other leisure pursuits. The report suggests that the strictly defined parameters of employment and unemployment will give way to activity where, for example, to be unemployed no longer means embarrassed inactivity, but simply temporary withdrawal into other meaningful spheres of activity, with or without financial reward.

When I interviewed Mr Reed he was critical of management for being short sighted in aiming for maximum production from minimum labour instead of maximum production at minimum cost. He argues that to equate machinery with saving is wrong when a large part of the saving is a direct result of tax concessions on capital investment; automation is only a saving when either there is other work available for the replaced workers or the increased production can maintain their incomes. He forecast that continuation of present trends will result before long in a 7 hour day, a 4 day week, a 46 week year and a 30 year working life. In Mr Reed's opinion temporary work will be a major growth industry by the year 2000 with employees choosing when and where they will work; there may be flexi jobs and flexi days as well as flexi hours i.e. people will experience a greater variety of jobs and will be able to choose how many days per week and hours per day they wish to work. This latter view is supported in R. Williams' (17) paper which put forward the view in 1973 that temporary work will occupy nearly 65% of the work force by the year 2000; temporary work may mean intervals between jobs rather then unemployment as we regard it today.

While there is much conjecture as to the effect of microprocessors on employment in the year 2000 there are other factors which should

provide more leisure time. A conservative estimate in 1978 of future increases in the U.K. Gross National Product is 2% per annum based on an average growth of over 2% per annum since the end of World War 2 (77). This would give an overall increase of 52% by the year 2000. The population increase trends (160) can be used to show that the population increase by the year 2000 should be about 9%. This would give a per capita increase in wealth of about 40%. In the U.S.A. there has been a tendency in the past for increases in prosperity to be divided two to one between material wealth and leisure respectively, according to J. Kreps and J. Spengler (30). They write that with greater emphasis on leisure recently it is not unreasonable to expect one half of the per capita increase to go on leisure. Assuming that their conclusion applies equally to the U.K. this would result in a 20% (50% x 40%) increase in leisure by the year 2000. Translating this pro rata into changes in hours and holidays could reduce basic working hours per week to about 33 together with an extra weeks holiday each year. In the past the division of the gains in prosperity have been decided by the Government, Employers and Trades Union Leaders. There is no evidence that the wishes of workers have been obtained before distributing the increase in prosperity. It could be that workers would prefer to take all the gain as leisure resulting, say, in a 28 hour week plus 2 weeks extra holiday. There are, however, many possible options for allocating increased prosperity between additional wealth and leisure. This led me to decide that part of my research would be to discover how people would choose between them.

Although no similar previous work had been found in the literature survey it was thought judicious to make enquiries of the Department of Employment, the Confederation of British Industries and the Trades Union Congress to discover if any other research was in progress in this field. The Department of Employment was expecting to place a contract with the Policy Studies Institute to determine the views of employers and Trade Union representatives on various options for reduced working hours; an economic adviser at the Department knew of no work that had been done or was being done on eliciting the views of workers and considered it a fruitful field for research. The head of the Confederation of British Industries

research department reported that members of the CBI had been asked to assess the effect of reduced working hours on their businesses. The CBI had invited proposals for research into the effect on business efficiency of various reduced working hour options. However, no work had been done or was contemplated on researching workers' views although the head of the CBI research department considered this worthwhile, particularly with regard to attitudes towards shift working and the relative value placed on income and leisure. The Director of the Trade Union Research Centre at Ruskin College, Oxford, was very interested in my proposed research field as it was complimentary to research which the Anglo-German Foundation had agreed to finance. He was planning to set up a small research team to examine the implication of a shorter working week for a few selected industries including transport and automotive production; a comparison was to be done with similar research in Germany. He welcomed my plans for research and knew of nothing similar that had been or was planned to be done in this field. Results from the Department Of Employment and Trades Union Congress surveys are reviewed later in the thesis (ps 143 & 144).

A REVIEW OF WORK SHARING OPTIONS

The unemployment problem is not pecular to Britain as is evident from a Commission of The European Community's report (18) in 1978, which provides a useful introduction to work sharing options. This report of a Conference in June 1977 states that unemployment is worsening and work-sharing should be explored as a solution. Work-sharing being defined as any form of re-arranging working patterns so that some workers do less work in their lifetimes and provide opportunities for other workers to work the time that has been given up. Job sharing is a special case of work sharing where two people work sequentially on the same job, usually during the same week.

By September 1977 there were 6M (3.3%) unemployed in the EEC with no expectation of great improvement before the early 1980s. Important causes were inflation and the weak balance of payments. Projected increases in working population from 161M in 1977 to a predicted 168M in 1982, due to demographic changes, were likely to

make matters worse. (It is shown later (p.172)that unemployment in the EEC had reached 11% by 1983).

The Commission favours an increase in work opportunities rather than the sharing of existing work. They cannot support anything which reduces technical progress because it also reduces industrial competitiveness. The EEC report concentrates on the two options for sharing work (i) reduction in working hours and (ii) reduction in the labour pool, because it is easier to do these than create new jobs. The most common methods of doing these are :-

Type (i) Reduction in working hours -

a) Reduction in working hours per day
b) Reduction in working days per week
c) Longer annual holidays
d) Restricted overtime

Type (ii) Reduction in the labour pool -

e) Earlier retirement
f) Longer education and training
g) Temporary interruption of career for family or other reasons

Whether people are removed from the work force for short periods (type i) or long periods (type ii) it is expected that other workers will be employed to make up some of the working time lost, i.e. the work is being shared in both options. The report does not list short-time working, which is an expedient already widely employed in the Community to keep people in employment when business is poor, because the EEC is seeking long-term solutions.

The EEC report advocates that the basic principles to be incorporated in the development of work sharing are :-

i) Ensure a free choice of employment and give individuals some choice on working life patterns
ii) Keep additional costs to a minimum
iii) Give priority to under-priviliged groups
iv) Work sharing should not be based solely on economic factors

The first methods for sharing work listed above (a) and (b) are reduced working hours; either hours per day or days per week. Reduced hours with reduced pay will probably not get the backing of Trade Unions. Where pay is kept constant a Company will be likely to increase prices to cover costs; this may result in a fall in sales leading to further unemployment. Alternatively, they can increase productivity to keep prices constant but in so doing they will not create any more jobs. The introduction of shift work, first to make up the reduced hours and then to increase them will give better utilisation of capital and is one way of increasing productivity and providing more jobs.

Increased holidays (c above)provide even less scope for creating employment unless they are concentrated into one or two continuous periods and 'locum' workers are available to replace those workers who are on holiday. However, the temporary or locum work will tend to be concentrated in the more popular holiday periods of the year and will not provide year round employment. Many firms prefer a holiday close-down to the spread of holidays as they can more easily plan increased production to make up holiday losses; no extra jobs would arise from a longer holiday period in these firms.

Reduced overtime (d above)is similar to a reduced working week but as overtime rates are higher than basic rates some saving in overall cost is possible. A general ban on overtime would be unrealistic as overtime gives a Company flexibility; on the other hand, continuous high level overtime should not be used if one wishes to reduce high levels of unemployment. One can restrict overtime by making it expensive, or by obligatory free time in lieu of payment or by a ban on its excessive use, i.e. by having an upper limit. The former is considered the least satisfactory as it will encourage workers to do overtime.

Earlier retirement (e above)places additional costs on public funds but more directly provides jobs for the unemployed. Belgium and France have used this measure. In France early retirement is permitted at 70% of salary from 60 with no part-time work allowed. This scheme is used less than anticipated and can be withdrawn if a demand for labour arises. A similar scheme has been introduced

in Germany for workers aged 63 years and above and about two-thirds take up the option. The Community also favours a flexible retirement age with the choice left to the individual. Keeping people off the labour market by extra education and training etc (f and g above) similarly help to reduce unemployment.

In addition, part-time working allows more people to enter employment and the employer can then make better use of his production capacity. The disadvantages at present are that there is less social protection for part-time workers, their commitment to the Company is frequently less, career prospects may be reduced, they tend to accept worse conditions (leading to conflict with other workers) and there are higher administrative costs. As mentioned earlier, where two part-time workers are employed at different times of the week on the same work they are job-sharing. The provision of more part-time work opportunities would encourage some of the retired to re-enter the labour force thereby reducing the opportunities for the unemployed.

The introduction of any method of work-sharing will not necessarily result in jobs for the unemployed. Employers may accept the lower output from the fewer hours or they may increase productivity to restore output to its previous level. Those wishing to maintain production by engaging additional staff may find it difficult to substitute a worker to make up a few hours lost on each of many workers; this will apply particularly to small companies. The removal of people from the unemployment register would result in a saving to the Government in unemployment benefits. This saving could be used to subsidise employers who employ more workers but it would not be sufficient to cover all the increased company costs such as wages, recruitment, National Insurance, training etc. The social value of low unemployment may warrant the Government increasing the subsidy, from taxation increases. Alternatively workers may be persuaded to forego increases in income to pay for the gain in leisure but the EEC report warns against a cut in the current income because it would reduce worker co-operation with work sharing schemes.

Some of the methods of sharing work, referred to in this summary of the EEC report, are considered in more detail below.

Education And Training

One of the two main options to reduce the pool of workers available for jobs is to increase the time occupied by education either as extended training in youth or better provision for adult education, including retraining schemes, during working life. The division of life into three discrete periods - education, work and retirement is artificial and there are many signs to show that this anachronism is already disappearing. The high rate of technological development is ending old jobs and creating new ones every year. Not only is there a need for extended education to fit young people for the present day technical environment but people should not expect their early education to be sufficient to last them throughout their whole working life. Prof. T. Stonier of Bradford University (10) goes further in advocating that children should be able to leave school whenever they have an offer of a job providing that the opportunity is available for them to receive further education whenever they want it. He proposes that "We must expand adult education in a manner which makes it possible - intellectually, administratively and financially - for potential students of any age to expand their knowledge base".

Decreased security of occupations and the need to find suitable alternative work is reflected in the investment of £580M in job centres in 1977 by the Government's Manpower Service Commission (2). In recent years 9M people on average have changed jobs per annum of which upwards of 300K have been due to redundancy, according to the Department of Employment. The Labour Government's concern to get people into suitable occupations is shown by various measures they introduced which include the provision of skill centres across the country. These centres provided about 16K places in January 1978 for adult training, and supplemented the extensive facilities of the Industrial Training Boards which covered most of British Industry.

Help for young people was given via the youth opportunity, community, and industry and work experience programmes which employed 300K people at a cost of about £500M in 1978 (161). All of these measures contained at least an element of training.

Demand for more academic adult training is demonstrated by the success of the Open University which was formed in 1969 and produced over 30K graduates by December 1978. In 1978 N.McIntosh, at the time Head of the Open University Survey Research Unit, made a study of Adult Education and drew attention to the fact that in Britain there is no general right to paid educational leave but everyone pays lip service to continuing education. She writes in 1978 (167) that there are no real pressures for recurrent education in Britain at present, unemployment is not bad enough, most Government money goes into training via the Manpower Services Commission and the Trades Unions are only just waking up to the need.

Early Retirement

The second and more easily adopted option for decreasing the pool of workers is earlier retirement. At present the normal age for retirement in the U.K. is 60 for women and 65 for men at which ages they are eligible for State pensions. However, more and more people are retiring earlier on incomes from private pension schemes; even the Government's male Civil Servants are officially retired at 60 which contrasts with the qualifying age for State Pensions. The Government's lack of consistency of attitude towards retirement is shown by the conflict between two of their measures. The first, the Job Release Scheme, was introduced in 1977 as a temporary scheme to alleviate unemployment. Workers within one year of National Insurance pension age are given a tax free allowance if they withdraw prematurely from the labour market; this has encouraged some workers to leave paid employment. The second, also in 1977, has raised the level of income State Pensioners can obtain before their pension is reduced by taxation (and when over 70 years of age the pension is inviolate). The latter measure has encouraged people to enter new jobs and new fields of activity after formally retiring. Working pensioners quotations (168) are illuminating and throw strong doubt on both fixed retirement ages and a social system which restricts opportunities for a variety of job experiences. Examples of the quotations are "Working in a new field is a real challenge", "What is ageing is being out of the mainstream of the working world", and "I only wish I had come into this field years ago". The article gives examples of specialist employment

agencies with experience of handling the retired age groups and lends support to the concept of flexible retirement. It is found that energy and personality are of more importance than age for most jobs. There are difficulties in finding suitable jobs for the over sixties because most want part-time work with an undemanding journey there and back.

More flexible arrangements allowing some choice of retirement age are forecast by both Government and Opposition spokesmen. Mr P. Jenkins, Conservative M.P. stated in the House of Commons in 1978 that the idea of a fixed retirement age for any individual, let alone any large group of people did not accord with the biological facts of life. In reply Mr E. Deakins, Health Under-Secretary, said that flexible retirement could be brought in only if it did not mean heavy extra Government spending or the award of inadequate pensions. Those with occupational pensions in addition to State Pensions would find it financially easier to retire early providing this was allowable under the schemes in operation.

E. V. Eves (20) wrote in 1978 that while average gross incomes would fall on retirement the lower paid could be better off on a pension. One example he gives is of a couple with a gross income of £3,000 on retirement getting a 50% employment pension of £1,500 plus a State Pension of £1,622. With allowances made for tax and National Insurance Contributions the net income on retirement is £403 per annum higher. In addition, there could be savings from no longer needing to travel to work or lunch away from home.

While there are many who would welcome the opportunity to retire early, there are those who argue against early retirement. Labour M.P. Mr J. Ashton points out in Choice magazine in 1978 that Britain faces the problem of an ageing population due to a lower birth rate and people living longer. He suggests that people might have to be encouraged to stay at work until they are 70 by the year 2001 to avoid the relatively smaller labour force being too heavily taxed to provide pensions.

Most people receive education or training for work but little is

done to prepare them for retirement. An increasing number of retirement associations are to be found but they only scratch the surface of the problem. "Boredom rather than poverty threatens to become a major social problem in the next two or three decades" said Mr D. Hobman, Director of Age Concern in June 1978. He predicts that "having too much time with too little to do can become a living hell for many". Mr Hobman claims that people need a role in life and endless leisure activities are not in themselves enough on which to build a full life. He quotes a Swiss doctor who had pointed out that people would live 10 to 15 years longer if they continued to work half-time beyond the age of 65.

In early 1978 the Secretary of State for Social Services was asked in the House of Commons to give the number of people involved and the cost to Public Funds of retirement for men from 60 to 64. In reply the figures in Table 3 were given :-

Table 3. Cost To Public Funds Of Retiring Men At Various Ages Below 65

Reduction to age	Number of males	Cost to Public Funds £M
64	240K	500
63	490K	1,000
62	730K	1,500
61	970K	2,000
60	1,180K	2,500

Source: Department Of Employment 1978.

In addition it was pointed out that if the retirement led to jobs for people now unemployed there would be some saving in unemployment benefit and supplementary benefit but this would only amount to about half of the above costs. Moreover, not all the retirements would lead to job vacancies. In a written statement in February 1978 he said that the Government accepted fully that it was illogical to have different pension ages for men and women but it was not possible at present for the Government to bear the high cost of reducing the male retirement age to 60.

The Government announcement on early retirement must have been based, at least partly, on the Department of Employment Study in 1978 (25). The Study considers the possibility of both general and selective early retirement. Whatever scheme is used the effect on unemployment would be largely governed by two factors (a) Take-up and (b) Replacement, i.e., the numbers who would take advantage of the scheme and the number of those retiring being replaced by the unemployed. Take-up is influenced by the coverage of the scheme, the level of benefits offered and people's attitude to early retirement. Take-up for general schemes is expected to be higher than for selective schemes as employers and employees would regard the general retirement age as the norm. However, it would take some years for take-up to reach a plateau while people adjusted to the new idea. Replacement would depend largely on the prevailing economic conditions. Where economic activity is high employers would readily replace retiring staff but in times of depressed activity employers might welcome the opportunity to reduce their number of workers. Paradoxically the scheme would provide least jobs when they are most required.

A general scheme for early retirement would give wider coverage leading to a greater effect on unemployment. Based on the retirement patterns of the 65 to 69 year olds it is possible to predict the likely retirement patterns of 60 to 64 year olds. This was done by the Department of Employment in 1977 (68) who estimated that in the first year of operating an optional minimum retirement age of 60 about 200K would take up the offer and this would rise after a few years to about 600K i.e. about 50% of those eligible. Selective retirement, e.g. in particular industries, occupations and regions would have less impact on unemployment but it is expected to be more cost effective because replacement rates would be higher as high unemployment groups would be selected. Disadvantages of a general scheme include the loss of workers from those industries where there is a shortage of labour, the potential for increased economic activity would be reduced and pressure would be put on occupational pension schemes to lower their retirement ages and this could increase employer costs by about 2%. It is estimated that the Job Release Scheme would provide four times as many jobs as general early retirement for the same level of

expenditure. However, an Opinion Research Centre survey carried out in the Spring of 1977 discovered that 15% of respondents had not heard of the Job Release Scheme for retiring one year earlier, 24% did not apply for early retirement because they enjoyed their work too much, 45% considered the allowance paid was insufficient inducement and 12% said it was not worth bothering for just one year. Therefore, although cost effective, JRS may be ineffectual.

Early retirement is already a feature in some European Countries (25). For instance West Germany, Sweden and Belgium allow retirement at 63, 60 and 59 respectively on reduced pensions. In France those retiring voluntarily between 60, and 65 the normal retirement age, get an allowance greater than the basic pension but only if they do not undertake part-time work. In Italy where retirement for men is at 60 there is provision for allowances corresponding to retirement pensions for those over 57 who are made redundant in depressed industries.

Redundancy of older workers has become more prevalent since the Redundancy Payments Act 1965. Parker et al. (21) show that before then only 19% of employers used age as a basis of redundance. A later study by the British Institute of Management (24) in 1974 concludes that age is now the single most important factor. It appears to Kreps (41) that when redundancy means unemployment without financial compensation, employers and Unions are inclined to protect the interests of the long service workers and base redundance on "last in, first out". As redundancy payments to older workers cushion the effect of unemployment, possibly until retirement, there is a tendency to retain younger, potentially more useful employees. Thus the loss of older workers by early retirement can lead to higher efficiency which will tend to counterbalance the cost of the larger retired population.

Annual Holidays

One of the main options for reducing working hours is to increase annual and / or Public Holidays. That there is some scope for increasing these holidays in the United Kingdom is indicated in Table 2 (p.24) where all other countries receive more; this obtains even allowing for the 2 most recent U.K. holidays, May Day and New Year's Day. It is not everyone that wants longer holidays

as many workers after three weeks on holiday become restless. Instead of a longer annual holiday there may be a preference for a reversion to the schoolday system of an extended holiday at Christmas and Easter in addition to the Summer break. Already many firms close down for the week linking Christmas and the New Year.

Delegates to an International Conference on Patterns of Working Time (166), in 1972, revealed national differences in attitudes towards holidays. The USA expressed a preference for a shorter working week and earlier retirement rather than more annual holidays, whereas in Canada the preferences were reversed. In France there had been a change in recent years from a preference for longer holidays to a preference for longer education and earlier retirement; this view was supported by 61% in the Netherlands. West Germany took yet another line in wanting any additional leisure to be spread between earlier retirement, shortening the working week and extending holidays. It is generally recognised that, in addition to differences between nations because of their different culture and traditions, there could be differences within each nation according to sex, age, family situation, educational level and income. Ideally from the individual's point of view a system allowing free choice should be introduced.

The major disadvantage of increasing annual holidays is that it is difficult and / or costly to use the reduction in working hours to provide jobs for others. In the worst case some firms close down their works for the holiday period thereby giving no opportunities for the unemployed. Lack of continuity of work is a reason frequently used to support the case for an annual shutdown but this obstacle may be exaggerated in order to conceal psychological resistance associated with members of staff refusing to delegate responsibility because they feel they are indispensable. Even where there is no annual shutdown and holidays may be taken at any time during the year, the change in climate with the seasons results in the preferred times for holidays to peak over a few months. This peaking is accentuated by those with young families who take their vacation during school holiday periods. Although parents in

the United Kingdom are permitted to take their children on holiday during term-time, many do not wish to affect their children's educational progress and do not do so. If People's holidays in any one organisation were evenly spread over the working year it would be theoretically possible to introduce "locums" or additional workers to make good the deficiency. In practice it would be difficult to find suitably trained and experienced staff able to stand in for those on holiday. To avoid under utilisation of equipment and to provide work for the unemployed, employees may be persuaded to take their holidays out of peak periods by offering bonus payments; this has been used in Austria and Belgium.

Nevertheless, to provide a job for one worker of 46 weeks per year there would have to be, for example, 23 other workers each getting an extra 2 weeks holiday. Even if those weeks could be evenly spread throughout the year either the new worker would have to be able to do all the other jobs or else there would have to be considerable interchangeability between all the workers. While this may be possible in large organisations where there are many workers in each occupation, it would be unlikely in those that are small or even medium sized. Of course, assuming there is no cover now for the current holiday periods of say, 4 weeks each, it would only need about eight workers holiday periods to provide one new job on increasing their holiday by two weeks up to six; eight workers for six weeks equals 48 man weeks. This would obviously be less difficult to introduce but would still be dependent on the ability of management to persuade workers to spread their holidays throughout the year.

Sabbaticals have much in common with annual holidays both from the employer and the employees' point of view. The lower frequency of these "holidays" and their longer duration only affects the degree of their influence on a firm's efficiency and the activities of the employees. The academic world's lead with respect to sabbaticals, has been followed only slowly, mainly in the professions, and, particularly, in countries such as Australia and the USA. In the United Kingdom Mr T. Duffy, President of the Amalgamated Union of Engineering Workers proposed in 1978 that all workers should have one year off every ten years to provide jobs for the unemployed (170).

He also proposed a greater use of shift work to create jobs with more flexible social and leisure services to encourage workers to accept them.

Fewer Hours Per Day Or Week

This option is a continuation of the process which began in the 19th Century and which is described earlier (p.18) The Trade Union pressure for a reduced working week has always been resisted and their present target of a 35 hour week, probably as 5 days of 7 hours, is likewise being strongly opposed. Sir Richard Pennock, Deputy Chairman of I.C.I. told the Confederation of British Industry in November 1978 (164) that work sharing and a shorter working week would not ease unemployment; it was only increased productivity that would shorten the dole queue. Sir Richard's views were well received, for in June and July of 1978 the C.B.I. had made clear their opposition to a shorter working week to the Chancellor of the Exchequer and Prime Minister respectively. Mr Healey was told that the work-sharing policy would add heavily to costs and make industry less competitive (169). Mr Callaghan was informed that even a compromise working week of 38 hours would add about 2½% to prices (12). The C.B.I. delegations to the Government maintained that a cut in basic working hours would only result in extra overtime, no increase in productivity and create far fewer jobs than the Unions expected. Even Socialist writer K. Waterhouse, writing in the Daily Mirror in 1978, is sceptical of the Unions' claims regarding unemployment. In an oversimplification he writes of Charlie, a machine minder, "After a lifetime of clocking off at six he commences a new era of clocking off at 5. What happens then? Does someone pop in for an hour a day to mind Charlie's machine?" Oversimplification though it may be, it does crystalise the problem of turning a shorter working week into new jobs. Admittedly larger firms could increase capital investment to provide more jobs at a cost but smaller firms would find this more difficult and even more expensive. A. Evans (23) provides evidence from several countries that a reduction of a few hours of work per week results in proportionally a much smaller loss of productivity, which in turn reduces the potential for new jobs.

The T.U.C. claim for a 35 hour week is supported by Mr J.D. Hughes,

Director of the Trade Union Research Centre in his 1977 paper (165). He estimates that a full transition to a 35 hour week would create about 750K jobs for an increase in labour costs of about 7%. An analysis of recent British and French experience leads him to conclude that there is not a proportional increase in production costs following a reduction in working hours. This is due in part to greater willingness of labour to co-operate in rationalisation programmes, resulting in higher efficiency, and to settle for more moderate advances in pay. To avoid any loss in competitiveness he suggests that joint action should be undertaken in other industrialised Nations, through the Trades Union Movement, where unemployment is also a major problem. Using figures from the 1976 New Earnings Survey Mr Hughes shows that an average reduction in basic hours of 8.7% would be needed to obtain a 35 hour week; for manual men workers it would be 12% and for non-manual it would be 7%. He concludes that a reduction in basic hours would be associated with some reduction in actual hours and a fairly high proportion of firms would hire more labour and / or extend shift working.

A similar study by the Department of the Employment (29) concludes that the effect on unemployment could turn out lower than expected because :-

a) Overtime working may increase as occurred in 1964-1965 when basic hours fell from 44 to 40

b) Output per man-hour may rise especially when productivity is low

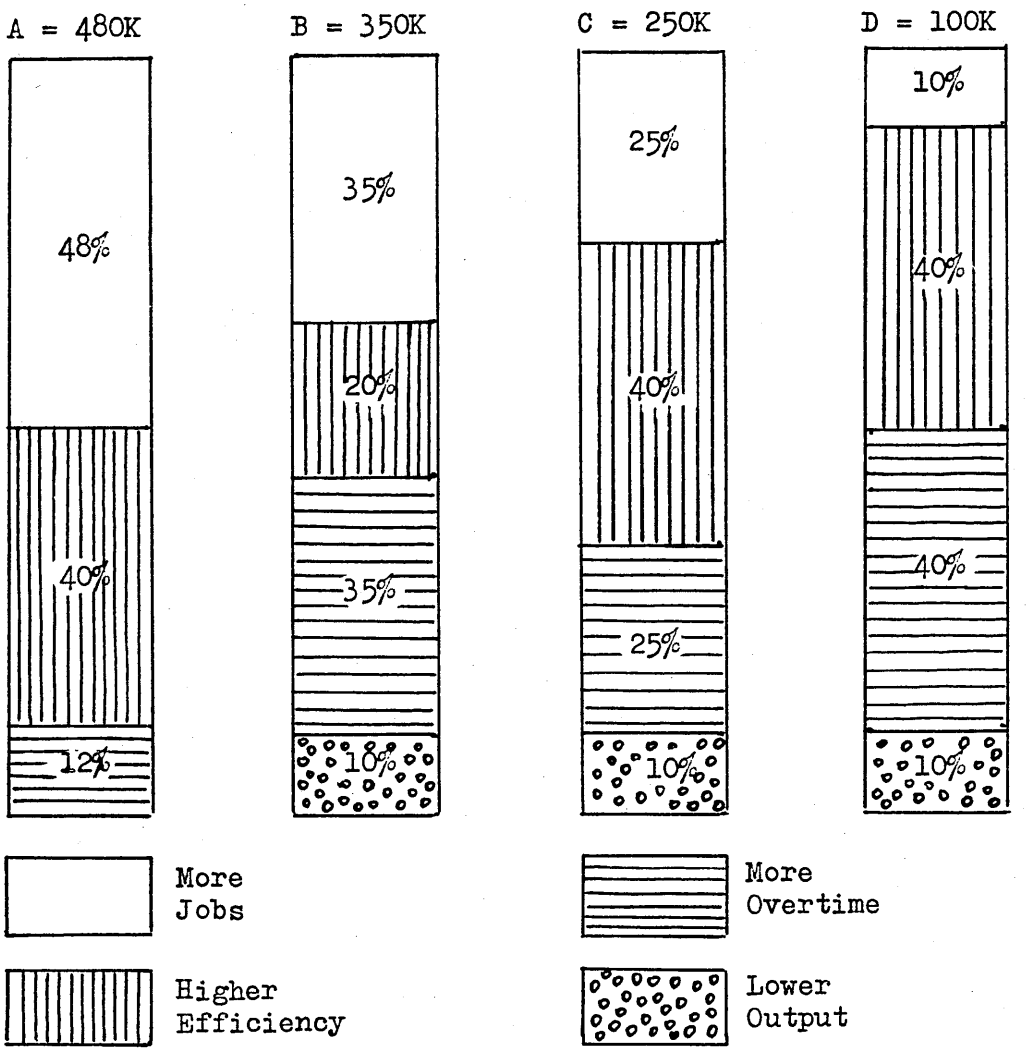
c) There are difficulties in grouping "lost hours" into full-time jobs

The Department of Employment estimates are based on four scenarios for regaining all or part of the productivity lost by reducing working hours to 35 per week at constant pay. A summary of the scenarios is given in figure 2. The estimates, at 1977 prices, for the four scenarios are,

A	Labour costs up	7.0%	, Government costs down	£650M
B	"	"	8.5%	"	"	"	£950M
C	"	"	6.1%	"	"	"	£700M
D	"	"	6.4%	"	"	"	£800M

Jobs provided: A = 480K, B = 350K, C = 250K and D = 100K.

Figure 2. Four Scenarios For Making Up The Output Lost By A Reduction In Hours To 35 Per Week



Source: Department Of Employment Gazette, April 1978

Even allowing for the Government saving on unemployment benefit and supplementary benefit, plus the increased income tax revenue, there would be a net increase in the costs for the economy as a whole.

C. Tyler (98) reviewed the Department of Employment estimates and concludes that they are misleading and, in some parts, wrong. The Trade Union Research Unit estimates for the same scenarios give 190K to 890K jobs resulting from a 35 hour week. The 750K quoted by J. D. Hughes (165) corresponds with the mean of the two most optimistic possibilities.

A much larger increase in labour costs has been predicted by the Engineering Employers Federation who estimate that it would be between 14% and 20% for a 35 hour week; this, they suggest, would

lead to additional unemployment due to a loss of exports, or larger imports. The differences between the three estimates of the costs depends on the standpoint of the observers. It is not unexpected to find that the Unions predict the lowest cost increase, the employers the highest while the Department of Employment occupy an intermediate position.

There is obviously considerable economic comment available on the implications of a 35 hour week but there is very little information on the social implications. It is believed that an additional hour of free time per day would be used on more of the same thing rather than induce a fundamental change of behaviour. This would mean the usual mixture of television, do-it-yourself, hobbies, pubs, time with family, reading, resting etc. Larger parcels of additional leisure such as a day or week are more likely to encourage a person to engage in extra travel, sports and other outdoor activities.

In this thesis I have used the term "leisure" to cover all "free-time" from work because this corresponds with the popular usage of the term. People in paid employment generally regard each working day to be divided into three parts - sleep, work and leisure or free time. However, the time remaining from each day after one has removed an allowance for sleep and work is rarely all available as leisure. A finer division of each day is (a) working time (b) time for physiological needs such as sleep, eating and toilet (c) work related time such as travelling and preparation for work (d) non-work obligations such as maintenance of the home and car, tending the garden, etc, but for some these are not obligations but leisure activities (e) the remaining time is discretionary time and is truly available for leisure. Sebastion De Grazia (11) does not regard free time as leisure for he believes that it is what one does with free time that makes it leisure; he defines leisure as a state of living. The amount of free time available for people on working days and days off is recorded for 12 countries by A. Szalai (26) in 1972; this is summarised in Table 4. He finds that time saved by labour saving devices does not go into leisure but seems to be utilised on other housekeeping activities i.e. housekeeping time keeps constant but standards rise. On average each day, 8 hours is taken up on sleeping, 85 minutes on eating

and 1 hour on hygiene. True free-time only averages about 4.3 hours where his view of free-time is the time remaining after work, travel to work and physiological needs have been satisfied. Although an additional 1 hour per day would add about 25% more free time to a working day it would still provide less opportunity for a planned activity than an occasional day off. F. Best in 1973 (162) suggests an even smaller amount of leisure, 3 hours, is available to a typical executive. He advocates a more flexible approach to working hours to release workers from the 5 day, 40 hour routine. His suggestions include flexitime, fewer working days per week and more sympathetic consideration for those who would like part-time work.

Table 4. Free-time For Men And Women

	As % of 24 hour day		As % of waking hours	
	Working day	Day off	Working day	Day off
Employed men	14	35	21	56
Employed women	10	25	15	40
Housewives	17	25	25	30

Fewer Days Per Week

Trade Unions have been very reticent to press for a working week compressed into 4 days giving a 3 day weekend; the 35 hour week target has not been defined by them as 4 days of $8\frac{3}{4}$ hours. Nevertheless the Association of Professional, Executive and Computer Staff has obtained a 4 day week for many of its members. A 4 day week is also worked by many night workers, some journalists, drivers of liquid fuel tankers and sales representatives who choose to work away from home for 4 long days rather than 5 shorter ones.

T. Richmond, an economist and freelance journalist, investigated the 4 day week in Britain in 1972. He found the Unions considered the 10 hour day a retrograde step as they had campaigned for an 8 hour day for many years; they would expect a reduction in total hours before accepting 4 day working. Employers also opposed a 40 hours week based on 4 days because they expected absenteeism to continue, the 10 hour day would be too long to maintain production, and workers would expect more money to cover the expenses of

another day's leisure. However, in a Yorkshire firm that had operated a 4 day week since 1965, productivity increased by 15% in the first year, fuel costs went down and absenteeism decreased; the workers were no more tired after 4 days of 10 hours than they were after 5 days of 8 hours and they preferred the longer week-end. Workers in a London firm felt extra tiredness after the 10 hour day but this was compensated for by the 3 day weekend; 83% of these workers voted to retain 4 day working after a 6 months trial. In one case employees in a chemical factory had persuaded their employers and Unions to operate a 3 day on, 3 day off system even though this meant having 12 hour shifts.

In the U.S.A. the 4 day week movement has made more progress and has been well documented by R. Poor (27) in 1972. Of 1,500 firms she knew had tried 4 day working only 75 had discontinued the system and, of them, about 25% had gone back to 4 day working when new schedules had been planned. Of those that had permanently returned to 5 day working it was thought that the prime cause was bad management, but earlier starting and later finishing hours were other reasons.

Businesses operating a 4 day week include manufacturing, service industries, retail and wholesale. They find that output increases, better use of equipment is possible with a longer day, worker morale improves giving less absenteeism and lower turnover of labour. Some employees find the 10 hour day more tiring but others find less overall fatigue because of the longer weekend. Employees claim lower expenses in travel to work and meals at work, and better access to Banks, Dentists, shops, Government agencies etc. It is found that about 75% of workers are prepared to try 4 day working and after experience 90% vote to retain it. The minority against are the old, set in their ways, and women who have to get a family off to school or work. 92% of 168 employees interviewed by R. Poor were pleased with the change, which compares very favourably with the 67%Hawthorne (33) suggests one would normally expect for changes to the working environment. Only 6 of the 168 interviewed by R. Poor complained of boredom at the weekend and these were all over 30 years of age. This result is not unexpected because the younger age groups generally have a more extensive social life and more energy; older age groups on the other hand

have become more set in their ways and are less able to take advantage of the additional leisure. Evidence that the new arrangement is not more fatiguing is indicated by the survey; 17% of the 141 who replied had 2nd jobs compared with the US National average of 5%. This also indicates that not all the extra leisure gained by some workers would contribute to jobs for the unemployed. Before trying the 4 day week 89% of the sample thought they would like it and of these 97% found this to be so. 4% of those who did not think they would like the change found that they were mistaken. 44 out of 137 stated that they spent more money on leisure activities and there was a tendency for this to increase with age and income.

Questions were included in the R. Poor survey (27) to discover the increased participation in leisure activities when workers changed from a 5 to a 4 day week. The total change in leisure activity hours for the sample are shown and expressed as a percentage increase for each activity in Table 5.

Table 5. Workers Use Of Extra Free-time In The U.S.A.

	5 day week	4 day week	Increase on 5 day	% increase
Do-it-yourself	94	116	22	23
Time with family	76	102	26	34
Travel	29	73	44	152
Non-participating sport	19	38	19	100
Participating sport	64	153	89	139
Hobbies	22	49	27	123
Reading	26	41	25	156
Resting	26	96	70	269
TV	27	44	17	63
Concerts, Cinema etc	22	44	22	100
Visit relations	28	62	34	121

Considering the small samples and different populations there is good aggrement with another American study by W. A. Faunce (28) on workers predictions as to how they would use increased leisure. The main discrepancies are that predictions of educational activities are higher and of resting are lower. It is very likely that these

apparent differences between the two populations are not real for there is a tendency for people to be optimistic in their forecasts of how they will use extra leisure; educational pursuits are an ideal not so readily achieved.

There are many variations of the 4 day / 40 hour week as capital intensive businesses often use various forms of shift-working to keep plant operating 7 days a week. These may be one or two shifts a day and where 24 hour per day working is required a popular arrangement is 2 x 10 hr shifts plus a 1 x 4 hour shift, the latter providing useful part-time work opportunities. Some retail businesses only open on those days when demand is known to be high. Future developments for reduced working hours include equal work and leisure periods. L. Sprague, Asst. Professor, University of New Hampshire proposes 4 days on and 4 days off in an 8 day 'week'.

Dr M. C. Faught, Chief Economist at the Timewealth Corporation, Houston, Texas goes further, advocating 3 days on and 4 days off. He points out that capital equipment would be kept in use 6 days a week by operating them with two groups of people each working for 3 days; the shifts would be easy to plan, more jobs would be made available, and each person's travelling time to work would be reduced. He suggests that as commuters would only work 3 days per week they could rent a room for 2 or 3 nights and not commute, thereby enabling them to live farther from their place of employment. One outcome of the long weekend could be a strengthening of family bonds, but this may be counterbalanced by the several nights separation each week which could place a strain on a marriage. Dr Faught, however, thought it would take two generations to adopt to this social revolution.

One can extend Dr Faught's proposal to 7 day week working where the two groups work alternate 3 and 4 day weeks giving an average working week of $3\frac{1}{2}$ days, i.e. the "$3\frac{1}{2}$" day week. Some businesses would wish to employ the same number of people in each group as they previously employed for 5 day working which would double their staff and reduce unemployment; others would spread their existing labour force over the 7 days. Many businesses would operate between these two extremes but overall there would be an increased demand for labour.

Better utilisation of facilities could lead to lower costs and lower prices increasing competitiveness and resulting in increased demand. Many businesses would be able to run on fewer machines for longer periods; accelerated wear on machines would allow earlier replacement thereby enabling modern equipment to be introduced more frequently which again could increase competitiveness. Should any worker be taken ill there would be an opportunity to call in his counterpart for a few days overtime.

In effectively extending the weekend from 2 to 7 days, there would always be one group not at work and the pressure on shopping and leisure facilities would be spread over 7 days. The Saturday shopping crush and weekend traffic jams would be removed. Peak traffic to work would be nearly halved allowing greater speed and comfort and generally easing the problems for public transport. Access to Banks and Government Agencies would be possible every day yet their employees would have longer uninterrupted "weekends" the same as all other workers. It would be possible, and indeed necessary, to operate the same system with schools to allow children to have the same weekend as their parents. This would mean that about half the existing classrooms would be sufficient for the total school population although the number of teachers would need to stay the same. Future rebuilding schemes could be reduced both here and in industry which would unfortunately reduce jobs in the Civil Engineering Industry, the only one likely to be adversely affected.

The $3\frac{1}{2}$ day working week is no panacea; some would find disadvantages. There would be no "quiet Sunday" when most activities now stop; nevertheless, those wishing to attend their church on Sundays could still choose a working period that allowed this. Similar arrangements might have to be made by those who are keen watchers of live sport. However, the increased leisure hours should boost all types of spectator or participator sports.

As Dr Faught suggests, there would be problems in changing from our present system to the one proposed but they could be overcome by careful planning. It would, however, be necessary to persuade people to accept possible short-term inconvenience in exchange for probable long-term benefits. (See p.162 also).

This review of work sharing options directed my attention towards the questions my research should address and eventually led to the detailed questionnaires described later. While flexible working hours during each day is yet another change in the pattern of work which is steadily gaining favour amongst workers and some employers it is not considered here. Flexitime improves the quality of life for the individual directly and society as a whole indirectly, e.g. reduced traffic congestion, but it makes no contribution to the unemployment problem.

RESEARCH OBJECTIVES AND METHOD

The literature search and interviews during 1978/9 revealed how academics, politicians and industrialists viewed the need and cost of introducing fewer hours of work, and various options for accomplishing reduced working time. However, the views of the general public were poorly represented. There was much conjecture on the preferences workers might show for changes in working time patterns and their preferences for either more money or more leisure. The need for empirical research was clearly demonstrated as there was virtually no direct information on the subject.

I, therefore, decided that my first objective would be to explore the acceptibility to the working population of several ways of shortening the total time spent at work. The second objective was to determine whether additional wealth or additional leisure had a greater utility value for the majority of people. It was hoped to correlate people's expressed preferences with their background work experience and personal characteristics. The third objective was to examine the social and economic costs / benefits of selected methods of reducing the total hours spent at work during a life-time. The fourth objective was to make policy recommendations for lowering the level of unemployment based on the results of achieving the first three objectives.

One hypothesis drawn from my study of the literature was that the option for work-sharing that would be of most benefit to employee and employer was the introduction of the $3\frac{1}{2}$ day working week (p.48). This became an important option to consider under the first objective of my research. The complexity of the concept of the

"3½" day working week made it inappropriate for a simple question of the type "would you like to see all businesses operated 7 days a week by two sets of workers working 3 or 4 days each?" It was very unlikely that the average person would realise the many advantages and disadvantages that might result from this change to the working / leisure time pattern. One solution would have been to have given a detailed text on the subject to each person for him to study before he was asked if he was in favour of this change to his working pattern. However, it was felt that many people would not be prepared to read a long text and, even if they did read it, they may have been biased by the presentation. Therefore, the decision was taken to put many general questions to each person and to interpret the answers in the light of the characteristics of the "3½" day working week and other forms of work-sharing.

The use of interviews to collect the required data was precluded partly by the complexity of the subject but mainly by the problem it would have given me, working alone, in trying to obtain sufficient results to allow a meaningful statistical analysis. Also, as some of the concepts would have been new to the respondents, it is likely they would have asked questions and they might have been biased by my answers. The method adopted for data collection was therefore a postal survey. For this two questionnaires were produced for two sets of respondents. One for those not old enough to draw the State pension, whom I call "workers" for convenience when referring to my survey results, and another for those drawing the State pension whom I call either "retired" or "pensioners". This is notwithstanding the fact that a few of the former were not actually working and a few of the latter had paid part-time employment. The questionnaires were used to elicit information on the basic characteristics of the respondents, their work experience, and their preferences for various options of work and leisure.

* Footnote. For convenience the following abbreviations are used in the thesis:

K = Thousand, M = Million and B = Billion

Chapter 2

Survey design and implementation

QUESTIONNAIRE DESIGN

Having determined that data would be collected by means of a questionnaire it became necessary to consolidate ideas on the broad questions to be posed and then to frame the specific questions; this was done in 1979/80. To achieve this, planned discussions were held with friends, work colleagues and relations; these were reinforced by ad hoc discussions with strangers whenever an opportunity presented itself.

From a distillation of the views expressed in these discussions the first questionnaire emerged; of 55 questions considered a total of 40 was used. A dozen copies of questionnaire No. 1 were distributed among some of those who had been involved in the detailed discussions to check their reactions to my choice of questions, the wording used and the overall format. Amendments were found to be necessary to 26 of the questions. This study also revealed the problem of trying to obtain the views of housewives, the retired and those in paid employment from one and the same questionnaire.

Although respondents found Questionnaire No. 1 too long the revision led to 41 questions in issue No. 2, because more new questions were thought of than the number I was able to eliminate. At this stage I was not prepared to restrict questions to only a small section of this complex research area. To encourage people to complete the new version some explanatory notes were added to explain briefly why the questions were being asked.

The advice of Open University staff was now sought on the Questionnaire and I was persuaded to concentrate my enquiries on the major issues of the subject in order to reduce the questionnaire length. A further change was made in an attempt to simplify the completion of the questionnaire by housewives and the retired. This work led to Questionnaire No. 3 which contained 28 questions.

Advice was now obtained from the Open University Survey Research Group and each question was rigorously reviewed. In addition to changes originating from the Open University Staff a fundamental change was made to the scale used for assessing the strength of

preferences. The early questionnaires had used money as a measurement scale. I considered that because answers such as 'very important', 'some importance', 'little importance' etc. had different meanings for different people, they were not very suitable for determining the strength of people's preferences although this approach is widely used. Putting financial values on various options quantified replies and, in theory, allowed some degree of algebraic addition across groups of questions. It was realised that the financial standing of an individual would influence the 'value' he placed on a given sum of money and an adjustment would be needed to eliminate the effect of differing incomes. However, I decided much later that this complication should be avoided, and a measurement scale of leisure was used instead. As there is greater comparability in the amount of leisure available to people than in people's incomes, I postulated that more people would place a similar value on a given quantity of leisure than they would on a given quantity of money. Fractions or percentages of weekly incomes could have been used for a "financial scale" but an appreciable number of people find these difficult to calculate.

Questionnaire No. 4 used for the Pilot Scale Survey retained 28 questions of which 16 required factual answers to establish the background of the respondents and 12 sought to determine attitudes to work and leisure. It was hoped that a large survey would reveal some correlation between the two groups of variables. However, no such correlation was expected to be found in the 50 questionnaire Pilot Survey as the number of responses was too small to allow meaningful statistical analysis. This survey had three specific objectives - a) to assess the likely percentage response, b) to assess the intelligibility of the questions and c) to assess whether the questionnaire still caused confusion in requiring a different approach from the retired, housewives and those in paid employment. Housewives not in paid employment had been asked to provide factual answers about their husbands' jobs but, in addition, to give their own preferences about work and leisure; this was to examine the differences that might exist between husbands and wives with the same background. The retired were asked to reply as though they were starting working life again but in their last occupation.

The views of the retired were considered to be of prime importance for only this group had had the experience that would allow a comparison to be made between retirement leisure and other forms of leisure time such an annual holidays and long weekends. Whereas early retirement might hold great attraction when seen from afar, views could change with personal experience, especially after any initial pleasure from the prospect of unlimited leisure had passed.

Of the 50 questionnaires distributed in the Pilot Survey only 30 were returned satisfactorily completed. A general expection of a 60% response rate had to be disregarded as a high response was only obtained where people received reminders; a 40% response was obtained where no reminder had been given. It was realised that in the planned survey where questionnaires would be returned anonymously by post no reminder was practicable. However, the decision was made to hand out questionnaires and collect by post as Oppenheim (31) advised that a higher response would be obtained than from a purely mail questionnaire. Oppenheim's views that anonimity, placing factual questions before personal questions and including a friendly approach with explanations also increased the percentage response, were noted in designing the questionnaire.

The second objective of assessing the intelligibility of the individual questions was achieved by examining the internal consistency of replies, making a record of the unanswered questions and noting the questions which obviously had been misinterpreted. In general the wording and format of the questions appeared to be satisfactory and only very minor changes were necessary. However, the questions designed to reveal peoples' attitudes to weekend working had to be changed radically yet again; a new version had been found to be necessary after each questionnaire had been put to the test in the field or reviewed by Open University staff. For questionnaire No. 5 the multi-part question on whether people would be willing to work on Saturdays alone or on Sundays alone, or on both days had to be further simplified to make it less ambiguous. A major change was also made to the question on the preferred retirement age; the questionnaire 5 version was divided into two parts to determine the influence of higher pensions from longer service on the choice of retirement age. The first choice now lay between retirement at various ages with constant pension

and continuing employment with normal pay. The second choice was between continuing employment with normal pay and retirement on a pension that increased with years of service. As care had been taken to keep well educated people to a minimum in the pilot survey it was concluded that most people would be able to understand the questions in questionnaire No. 5.

The suitability of the format for the retired and housewives was the third objective. To cover the views of the retired an approach was made initially to an old people's housing complex where men and women over the age of 70 still took care of themselves but where a resident warden was available to give assistance where necessary. The general response was that they were not interested in filling in any forms especially those where much thought was needed. The few that attempted the questionnaire found several questions that were too difficult and others became confused by questions that required answers from different viewpoints depending on whether they were retired paid workers, retired housewives who had also been in paid work or 'retired' housewives who had not been in paid employment. It appeared that where retirement had occurred at least five years before answering the questionnaire an assessment of earlier working conditions and equivalent current earnings was either beyond them or required too great an effort. No satisfactorily completed questionnaires were obtained. I concluded that a questionnaire of this complexity was unsuitable for the average person over 70 years old and a separate questionnaire would be required for others who were retired. This view was confirmed later by the distribution of questionnaires at two old peoples clubs; those who had retired recently showed most interest but they still found difficulty in answering the dual purpose questions covering those working and those retired. Accordingly the decision was taken to produce a separate questionnaire for the retired even though two different questionnaires would be more expensive and would complicate the questionnaire distribution and the analysis of the results. The zero return from the old people's complex was not included in the 50 of the Pilot Scale survey.

The questionnaire for the retired consisted basically of 15 of the most relevant questions extracted from questionnaire No. 5, suitably

modified, together with new questions to determine the desire for a return to paid employment and the reasons for this desire. As the 15 original questions used had given no trouble to the younger pensioners in the old people's clubs a separate pilot scale survey was considered to be unnecessary.

In considering any innovation that could change the social environment one had to pay due regard to housewives who were not in paid employment. This group still constituted a large percentage of the population in spite of the trend for housewives to remain at work and to return there comparatively shortly after absence for child rearing. To ensure some of this group were included in the Pilot Survey ten questionnaires were distributed at a young housewives club; nine were returned satisfactorily completed but the tenth was destroyed by an irate husband who objected to his wife supplying information about himself. Great care had been taken to protect the identity of respondents as names and addresses were not required and the questionnaires were returned in plain unmarked, sealed envelopes via an intermediary who passed the whole batch of envelopes to me. The husband's extreme attitude supported my belief that loss of anonimity would result in a reduced response to the full scale survey. Further evidence of respondent sensitivity were two questionnaires completed except for details of income. The pilot survey included a total of 14 housewives, 7 of whom were not in paid employment.

An interview was held with staff of the Office of Population and Census Surveys in London. They commented favourably on the copies of draft 5 of the questionnaires which had previously been sent to them. Several minor changes proposed to the wording and format of the questionnaire were included in draft 6. At the last moment I withdrew the question on incomes to reduce opposition to completion of the questionnaires. In its place I introduced a question asking respondents to state how they perceived their standard of living which I believed was less contentious but would still be a useful variable against which to compare attitudes to work and leisure. The questionnaires were now ready for production and distribution; copies are given as Appendices 1 and 2. They contain mainly closed questions for ease of response and analysis but some open questions are included to obtain greater depth of understanding of the replies to selected questions that respondents might not fully comprehend.

The sample size required was determined using the formula proposed by Des Raj (31) for Social Surveys -

$$n = \frac{100\,(1 - P)}{P}$$

where n = the number of usable completed questionnaires
and P = the expected number of a particular opinion (as a decimal fraction).

This formula assumes a standard error of 10% is acceptable on P, being derived from the more general equation.

$$n = \frac{P\,(1 - P)}{(SE)^2}$$ where SE is the standard error.

The maximum number of possible answers to any question was 11. Hance, assuming all answers were equally favoured, approximately 9% of responders would chose each answer or opinion. However, in practice it was expected that some answers would be preferred to others. This could result in some answers obtaining considerably less support than 9%. It would have been impractical to have chosen a sample size large enough to give good statistics on answers with the least expected support. Therefore 9%, the mean, was arbitrarily taken as the minimum level from which to calculate the response size (n) required.

$$\text{Thus } n = \frac{100\,(1 - 0.09)}{0.09} = 1011$$

From the pilot survey it was estimated that a 40% response rate was achievable where reminders were not sent; however, the 40% was calculated from only 10 replies from 25 questionnaires where no reminder had been given. There was a 68% probability that the true response rate lay within 1 standard deviation of 10 i.e. 7 to 13.

There was a significant chance of the lower response rate which was calculated as 28%. Thus the sample size (N) could be calculated :-

For P = 40%, $N = \frac{100}{40} \times 1011 \simeq 2500$

For P = 28%, $N = \frac{100}{28} \times 1011 \simeq 3600$

In the event, a total of 3,400 questionnaires were produced of which 3020 were distributed and 1105 were returned completed (36.6% response).

Because of limited financial resources it was not possible to use a National Postal Survey to obtain a pure random sample although that would have been the preferred method. Instead, for convenience, it was decided to restrict sampling to my home area and thus the sampling frame became the working population of the Reading area.

It is of interest to note that Reading was the area chosen for the first social survey in the UK using a sampling technique; this was carried out by A. L. Bowley in 1912 (32). Bowley's choice of Reading for the survey was based on it being representative of the UK. Subsequent researchers have used Reading for similar reasons because it covers a wide variety of industrial, commercial and agricultural interests. Nevertheless, my choice of Reading for a survey was fortuitous.

In case attitudes to work and leisure were a function of the industry in which a respondent worked, I tried to ensure that each industrial sector was well represented in the survey; this was done by stratification with simple random sampling. Reading's industries were identified through Thompson's Local Directory and Kompass - UK 1980 and were divided into the 11 categories shown in question 7 of Appendix 1 which were based on the breakdown used by the Department of Employment for their statistical tables. A random selection was made from each strata and the management in each firm thus selected was asked for an interview.

At each interview I described the objectives of the research and asked the managers to display prominently notices I had produced (see Appendix 3). These explained the purpose of the survey and invited staff to take part. Anonimity was to be ensured by responders not giving their identity and the questionnaires being returned directly to the University in pre-paid envelopes. The name(s) of the person(s) in the organisation from whom copies of the questionnaires could be obtained was also given on the notice. About one month later I called back to collect the questionnaires that had not been taken by the employees.

Inspection of the first few hundred completed questionnaires revealed that there was a poor response from manual workers. It was not apparent at the time whether this resulted from a reluctance of these workers to complete questionnaires or that fewer of them were aware of the survey; later I found that both factors applied. Discussions with management indicated that manual workers were less likely to look at works' notice boards. This could have been due to the siting of the notice boards or a natural reluctance of the manual workers to look at "management" notices. In a few cases managers had even suggested restricting access of manual workers to the questionnaires because "they would not be interested" or "they would not complete them satisfactorily".

To counterbalance the influence of "management" on the class of worker completing questionnaires an approach was made to other companies through the Trades Unions. Interviews were held with Union representatives similar to those held with managers. Notices were put on Union notice boards or details of the survey spread by word of mouth by the Union representatives. The latter method was the only practical route to contact agricultural workers and this was achieved through 12 branch secretaries of the National Union of Agricultural and Allied Workers whom I interviewed.

Details of each interview associated with the survey are not given here because they add nothing to the ideas and viewpoints expressed in the earlier sections of the thesis. Also the interviews were only a means of gaining access to the workers in each Company I visited. The views expressed by the managers and Union representatives were in many respects stereotyped. Both sides of industry expressed concern over the problem of unemployment and many speakers saw little prospect of full employment again due to the effect of foreign competition in world trade and developments based on micro-chip technology. Managers were generally against reducing working hours to share work because it would increase costs resulting in a further loss of competitiveness and additional unemployment. Trade Union representatives generally favoured work sharing and believed management could afford to do this without reducing wages. Union attitudes to the survey ranged from highly enthusiastic to "I can't waste time on a long term theoretical

exercise when I've got practical Union problems to sort out now". Managers' attitudes ranged from medium interest to "I won't let my workers take part in this survey because it will take their minds off their jobs". Most of those interviewed could see the merit of operating businesses 7 days per week using a double work force each working 3 or 4 days. However, many were apprehensive about the problems of implementation.

A later inspection of over 500 completed questionnaires showed an increased percentage of manual workers but still less than the percentage that existed in the sampling frame. This factor, coupled with the lack of co-operation from a number of firms forced me to revise my thought on the chosen sampling method. I decided to carry out a new survey, using 2000 copies of the same questionnaire employing cluster sampling; 40 copies going to each of 50 areas. A simple identifying mark was used to distinguish this distribution from the earlier one.

A list of all the roads in Reading was arranged in alphabetical order and every 32nd road selected to give 50 roads for the survey. When the 50 roads thus obtained were plotted on a map of the town it was found that at least one road appeared in each sector; old, new, outer, inner, council and private roads were all well represented. 40 questionnaires were personally delivered to each of these roads. The procedure adopted was to drive to each road and park at the first convenient place. Questionnaires were delivered to the houses nearest my vehicle on each side of the road and every second house from them. Adjoining houses were not chosen because the questionnaires invited recipients to pass on the document to another person if they were not interested in taking part in the survey; this was made easier for them by ensuring that their immediate neighbour did not have a copy.

As two sampling methods had been used for a single sampling frame there was a theoretical possibility of replacement or duplication of results. However, it was calculated from the number of adults in the Reading population that only five people were likely to have obtained questionnaires via both routes. With only about 1 in 4 being completed this reduced the possibility of duplication to

about one person and even he would probably not have bothered to complete both copies. Therefore, duplication was considered to be insignificant. The distribution using stratification by Company took place in 1980/81 and by clustered random samples in 1982; there were 560 responses to the former and 545 responses to the latter.

SAMPLING PROCEDURE AND DATA COLLECTION FOR THE RETIRED POPULATION

From my experience at the pilot survey stage it was apparent that there would be difficulty in obtaining the views of the retired. I did not have access to a register of either all those of retirement age or receiving retirement pensions in Reading. Even if one had been available many on the register would have been unsuitable because of senility or apathy as evidenced by my zero return from an old peoples home at the time of the pilot survey.

The primary objective of this survey was to obtain the views of one special age group, the retired, on attitudinal questions already put to the working population. Therefore a sample size was required that was equivalent to the size of the average age group in the main survey. This was expected to be 125 because 8 age groups were to be covered by about 1000 completed questionnaires. A response rate of 25% seemed a reasonable estimate based on experience with pensioners in the old people's clubs and other problems expected with distribution to this selected group of the population; thus about 500 questionnaires were needed. In the event 534 were available of which 355 were taken and 147 completed (41% response).

Contact was made with representatives of Age Concern, the Voluntary Service Council, the Chairman of the Pre-Retirement Fellowship and a spokesman for the Reading Retirement Centre. They confirmed my view that questionnaires should be made available to physically and mentally fit old age pensioners to ensure they were usefully completed. The fact that the sample was not representative of all pensioners has to be taken into account when interpreting the survey results.

Two methods of distributing questionnaires were considered. The first, through "Darby and Joan" clubs, was rejected to avoid adding further bias to the results. Many retired people never attend them, although they are fit enough to do so, because they have no interest in their activities. The second method, through sub-post offices, was adopted because most active pensioners collect State Pensions there. Thus although the original sampling frame was all people drawing the State pension in the Reading area the sampling procedure restricted the response to physically and mentally active people who drew State Pensions through sub-post offices.

The Head Postmaster in Reading kindly supplied to me a list of the 49 sub-Post Offices in the area. A map of Reading was used to select 25 of these such that each sector of the town was well represented. Interviews with each sub-postmaster or his assistant were carried out at which the purpose of the survey was explained and their help requested. They were asked to take between 24 and 30 questionnaires and hand one to any retired person who showed interest in the survey. They were also requested to display prominently a notice (see Appendix 4) that invited retired people to take part in the survey by completing a questionnaire. 19 of the sub-postmasters agreed to help; some of those that declined said that there were very few old people locally. A few months later I collected the questionnaires that had not been used and shared them between the remaining sub-post offices. Another 17 sub-postmasters co-operated bringing the total to 36, 76% of the total. Once again many questionnaires had not been taken and in no case did anyone use up their entire allocation. It was found that the average take up rate at the post offices was about 40% on each occasion. This survey was carried out in 1982.

Chapter 3

Analysis of the survey data

The problem of obtaining simple random samples for the two surveys, for the workers and the retired, is discussed on pages 58 to 63 the definition of "workers" and "retired" is given on page 51. In the event, data from the workers were obtained by two methods - a stratified random sample through Companies and a clustered random sample; it is show later (p.67), that similar results are obtained from both of them. A simple random sample was also not obtained for retired people because not all of them were equally likely to visit the sub-post offices where questionnaires were made available. However, this method of sampling was intentionally chosen to restrict response, in the main, to pensioners who were mentally active in order to have confidence in the validity of the replies.

In both surveys the response was low, 36.6% for the workers and 41.1% for the retired. Thus, the large degree of non-response meant that even with a truly random sample there would have been doubt as to how representative the samples were of the sampling frames. Nevertheless, the samples have been assumed to be reasonably representative of the population of Reading with regard to the attitudes investigated because the two completely different sampling methods used for the workers gave very similar results. Little correlation was found between the stated characteristics of responders and their expressed views, except for age and sex. These two factors appeared to have an appreciable effect on the attitudes of respondents to a few of the questions, as shown later. These findings are consistent with those of G.R. Jones (42). In addition he finds that an individual's personality is a more important factor in determing his response to questions on work and leisure than are attributes such as marital status, education, occupation etc. It is these latter attributes or characteristics that are included in the early questions in each of my questionnaires; no attempt has been made to determine the personality of my respondents although this might be a fruitful field of research. It could be that my respondents have an unidentified characteristic that is not common to others in the Reading area. Therefore I have not assumed that the survey results can be applied to the whole of the sampling frame.

Bearing this qualification in mind I still decided to use the standard error for a simple random sample, $\sqrt{\frac{P(1-P)}{n}}$

where P is the proportion and n is the number in the sample from the surveys; while it did not precisely represent the absolute error on estimates of preferences of the whole adult Reading population it did give a good indication of the comparative reliability of each set of results. Wherever an error is quoted in this paper it is the standard error and it needs to be doubled to give the 95% confidence interval about P. Where I state in the text that the results from the "Company" distribution and "Random" distribution agree to within 1 standard error I mean that each result is within 1 standard error of the weighted mean result of the two surveys, i.e. the combined sample survey.

As mentioned above, hardly any relationship was found between the work experience, personal characteristics and circumstances of respondents, and their expressed preferences. Pearsons Correlation Coefficients were used initially without any success. However Moser and Kalton (34) write that statistical tests should be interpreted with caution and understanding. "When a test produces a negative result - not statistically significant - this does not necessary mean that the effect does not exist in the population". They draw attention to the fact that for a given sample size a statistical test is more likely to produce a significant result where proportions differ substantially rather than only slightly. As many of the proportions in my surveys are not substantially different I looked for possible correlation trends by inspection and measured their significance using the Chi squared test. This led to results which were of more interest. In all cases, estimates of significance given in my text and tables comes from these tests; the possibility of a correlation between two variables is only suggested for results that are 5% significant or less.

The total number of worker respondents is 1105 and of retired respondents is 147. As only a few of them failed to attempt all the questions, the non-respondents to individual questions are not included when estimating the percentages selecting each answer to the questions. Attention is drawn in the text to those few cases where the number of answers to questions is substantially different

from the number of completed questionnaires. Proportions and errors are always based on the number answering each question and not the total number of respondents. The number answering each question is given in the tables as "N" for the workers survey and "NR" for the retired.

From an examination of the data recorded from the Company and Random distributions I decided that the aggregate could be regarded as a single sample. Therefore where reference is made to the "combined survey" it is the combination of the two "worker" surveys one for Company distribution and one for random distribution. Of 15 questions on preference, 10 are within 1 Std error and 4 more are within 2 Std errors, i.e. 57% within 1 standard error and 93% within 2 standard errors strongly supporting the combination of the two surveys. There are more marked differences between the backgrounds of the respondents for the separate surveys; of 12 attributes compared, 3 are within 1 Std error, 6 more are within 2 Std errors, and 3 are different by more than 2 Std errors, i.e. 25% within 1 standard error and 75% within 2 standard errors. As mentioned earlier it is apparent that most of the background characteristics examined, apart from age and sex, have little influence on preferences. However, there are some expected correlations on specific subjects, e.g. those who work at weekends express a stronger preference for weekend work, those who start work early are more prepared to start work early. These correlations probably reflect the conservative nature of most people in that they show an aversion to change. On the other hand one can argue that the characteristics of their jobs may have led to them applying for the jobs in the first place, another chicken and egg situation. Similarly there are other expected results which check the internal consistency of the results by showing that the better educated tend to hold Professional and Managerial posts, and consider they have a higher standard of living.

For simplicity of presentation, comparison of the two sets of results for employed persons are shown together with the aggregate results in the following analysis. The responses of the retired and workers to identical questions are also brought together for ease of comparison. As stated earlier, experience from the larger survey shows that sex and age are the most important attributes of those investigated for influencing preferences. Therefore, as

the retired respondents are considered to be a single age class, the only sub-division undertaken of the smaller survey is by sex.

Each question is examined below in the order in which it is printed in the workers questionnaire. Brief comment is given on each, particularly those of importance to discussion in later sections of the thesis. A few questions included in the questionnaire, when the future path of the research was uncertain, now have little relevance to my analysis; these are treated accordingly. The questions considered under each sub-heading below can be identified in the questionnaires in Appendices 1 and 2 by code numbers given after each sub-heading. For instance Q1 is Question 1 of the questionnaire for the workers, i.e. those not in receipt of State Pensions (p.51) and RQ1 is Question 1 of the questionnaire for the retired, i.e. those in receipt of State Pensions (p.51).

BASIC CHARACTERISTICS OF THE RESPONDENTS

Sex Of Respondents Q1 and RQ1

The response of 742 men and 360 women suggests that men were twice as willing to take part in the surveys. It is interesting to note that the Parker survey 1980 (35) has twice as many male respondents as females. In table 6 there is excellent agreement, better than 1 Standard error between the Company and Random distributions and good agreement between them and the Retired survey. 1981 Census figures data for Reading (36) show that there are actually slightly fewer men than women in the aggregate sampling frames. In the Retirement survey, 94 men and 53 women completed questionnaires yet there are generally more female pensioners than males. It is possible that the mode of distribution is biased towards men for the workers survey, because there are more men in paid employment, but this is not the case for the retired survey.

Table 6 - Sex Of Respondents In Four Surveys

	% in Company Survey	% in Random Survey	% in Combined Survey	% in Reading 1981 Census	% in Retired Survey
Male	67.2±2.0	67.5± 2.0	67.3± 1.4	49.4	63.9± 4.0
Female	32.8±2.0	32.5± 2.0	32.7± 1.4	50.6	36.1± 4.0
			N = 1102		NR = 147

Age Of Respondents (Q2 and RQ2)

There is good agreement between the Company and Random surveys except for the younger age group. The low return for young people from the Random survey could be due to a systematic bias introduced by limiting one questionnaire to each household; it is highly probable that parents would assume a right to the questionnaire. This is a factor that can have influenced also the poor female response to the Random survey but this is not supported by the similar response from the Company distribution shown in table 6. Table 7 shows how the age response compares with the distribution in Reading from the 1981 census (36).

Table 7. Age Of Respondents In Three Surveys

Age group	Company Survey %	Random Survey %	Combined Survey %	% In Reading 1981 Census
16 - 24	19.0±1.7	11.0±1.3	15.1±1.1	25.7
25 - 34	28.3±1.9	31.6±2.0	29.9±1.4	25.7
35 - 44	21.9±1.8	26.5±1.9	24.2±1.3	18.9
45 - 54	18.5±1.6	18.4±1.6	18.4±1.2	
			(30.8±1.4)	29.7 *
55 +	12.3±1.4	12.5±1.0	12.4±1.0	
			N = 1102	

* excludes women over 60 and men over 65 which is similar to my combined survey.

Because both age and sex are found to be major influences on preferences the distribution of the sexes between age groups is given in table 8. It appears that younger men and older women

are less interested in unemployment problems or surveys in general. However the different age distribution of employed males and females in the Companies survey could be a contributory factor as could typical male assertiveness in the Random Survey.

Table 8. Age Distribution Of The Sexes In The Worker Survey

	16 - 24	25 - 34	35 - 44	44 - 55	55 +
	%	%	%	%	%
Males	10.8 ± 1.1	31.3 ± 1.7	25.2 ± 1.6	18.0 ± 1.4	14.7 ± 1.3
Females	24.0 ± 2.3	27.1 ± 2.1	21.5 ± 2.2	19.6 ± 2.1	7.8 ± 1.3

N = 1102

The age distribution of the retired respondents is given in table 9 showing the effect of earlier retirement pensions for women and possibly providing supporting evidence for the view expressed above that older women have less interest in the unemployment problem than older men.

Table 9. Age Distribution Of The Sexes In The Retired Survey

	50 - 53	54 - 57	58 - 61	62 - 65	66 - 69	70 +
	%	%	%	%	%	%
Males	1.1	2.1	4.3	10.6	41.5	40.4
Females	0.0	0.0	24.5	32.1	20.8	22.6

NR= 147

Marital Status Of Respondents (Q3 and RQ3)

The more ready availability of questionnaires to single people at work rather than at home, as for age in Table 7, probably accounts for the difference between the Company and Random surveys shown in table 10. Married people, with their greater responsibilities may also have taken more interest in the survey because the proportion of married persons in the Reading area is little higher than for single adults.

Table 10. Married Status Of Respondents

	Company Survey %	Random Survey %	Combined Survey %	Reading Area %	Retired Survey %
Single	24.6	12.0	18.4	43.9	14.4
Married	68.6	81.5	75.0	48.0	66.4
Widowed/ Separated	6.8	6.5	6.6	8.1	19.2
			N = 1098		NR = 147

Educational Qualifications (Q4 and RQ4)

It was expected before this research started that the education of responders would have a significant effect on their preferences but this is not found. A few relationships are found when the raw data of table 11 is collapsed to give just three classes of education - lower, medium and higher; these are discussed later. As is to be expected those with better qualifications hold better jobs and have a higher standard of living. Thus, wherever a relationship is found between educational qualifications and another variable, the same relationship is found with occupation, i.e. Higher education equates to Professionals and Managers
Medium education equates to other Non-Manual workers, and
Lower education equates to Manual workers.

An examination of individual records shows that exceptions exist but, in the main, the relationship holds to 1% significance. Agreement between the Company and Random samples is to about 2 standard errors.

Table 11. Educational Qualifications of Respondents

Collapsed Data

Education	Company Survey %	Random Survey %	Combined Survey %	Retired Survey %
Lower	46.8	35.0	41.0	47.1
Medium	30.0	35.1	32.5	28.2
Higher	23.2	29.9	26.5	24.7
			N = 1094	NR = 139

Table 11. Educational Qualifications of Respondents - cont'd.

Raw Data

Education	Workers not retired	Retired	
No qualification	24.4	39.9	Lower
Up to 2 GCE O levels	16.5	7.2	
Over 2 GCE O levels	15.4	14.5	Medium
GCE A levels	8.3	4.3	
ONC or OND	8.9	9.4	
HNC or HND	7.0	8.0	Higher
Teaching Certificate	3.1	5.8	
University Degree	16.4	10.9	

Standard Of Living (Q5 and RQ12)

Collapsed values of above average, average and below average standard of living are used to find relationships between the standard of living and other variables. Again, apart from questions on finance, no relationships are found except for the obvious, e.g. a higher standard is related to a better job. The agreement between Company and Random samples is again not good as seen in table 12, although the average difference is within 2 standard errors, the Random sample has a perceived higher living standard corresponding to fewer manual workers and more professional workers and managers. It is unexpected to find that the retired sample look upon their standard of living a little more favourably than those still at work. This could be partially explained by the retired group having an occupational class breakdown close to that of the Random Survey as seen later.

Table 12. Standard Of Living Of Respondents

	Company Survey %	Random Survey %	Combined Survey %	Retired Survey %
Above Average	33.6 ± 2.0	42.9 ± 2.1	38.2 ± 1.5	48.9 ± 4.1
Average	51.1 ± 2.1	43.4 ± 2.1	47.3 ± 1.5	38.3 ± 4.0
Below Average	15.3 ± 1.5	13.7 ± 1.5	14.5 ± 1.1	12.8 ± 2.8
			N = 1095	NR = 143

Employment Status (Q6)

No comparison is made between Company and Random distributions because the unemployed and self-employed are not found within Companies. For the combined survey it is found that 92.0% are in paid employment, 3.7% are self-employed, 2.0% are unemployed and 2.3% are housewives not in paid employment.

WORK EXPERIENCE OF THE RESPONDENTS

Industry In Which Respondents Were Employed (Q7 and RQ8)

It was hoped that a good response would be obtained from employees in all Industrial Sectors. However table 13 shows that there is a better response from Public Service employees than one would expect, assuming Reading is similar to the national average. I found that the Public Service organisations I approached were always willing to co-operate in the research in contrast to some sectors of Private industry. It should be noted also that even the Random survey gives a response for the Public sector nearly double that expected from the national figures for 1981. Possibly the workers in this sector are more conditioned to form filling and paperwork in general than the average worker elsewhere. The retired sample also favours this sector to an extent similar to the workers survey. This imbalance is considered to be of little importance because no correlation is found between the industry in which respondents are employed, or have been employed in the case of the retired, and other variables.

Considering the difference between the distribution methods for the Company and Random Surveys there is reasonable agreement in table 13 between the industrial sector breakdown from them. The higher Primary Industry percentage from the "Company" distribution arises from a direct approach to the farming community adjoining Reading, obviously absent from the Random distribution to homes in the town.

Table 13. Industrial Background of Respondents

	Company Survey %	Random Survey %	Combined Survey %	National Figures 1981 %	Retired Survey %
Primary Industry	6.1	1.3	3.8	3.2	1.4
Metal & Chemical Production	0.5	2.3	1.4	3.5	0.0
Mech. & Elec. Engineering	18.3	13.0	15.7	12.9	8.4
Other Manufacturing	4.7	7.6	6.1	11.4	6.3
Construction	1.3	5.9	3.5	4.9	4.2
Transport, Communication	6.4	8.5	7.5	6.6	9.8
Distributive Trades	7.0	9.6	8.3	13.2	7.7
Business Services	8.3	11.0	9.6	6.2	4.9
Prof. & Scientific Services	12.4	20.0	16.1	17.5	26.6
Public Services	29.1	14.7	22.1	8.8	25.8
Miscellaneous	5.9	6.0	6.0	11.7	4.9
			N = 1086		NR = 143

Occupations Of Respondents (Q8 and RQ9)

No worthwhile relationships are found between respondents' occupations and other variables but some trends are observed using collapsed values, as shown later. Table 14 compares the Survey results with national figures published in the Employment Gazette, November 1982. It is interesting to note that the original sample, via Companies, is similar in structure to the national figures showing that the late assistance of the Trades Unions representatives improved the balance of the response. The Random distribution figures support the view that there is a reluctance by manual workers to take part whereas those in higher status occupations are more willing. One would expect the higher proportion of more senior grades in the retired sample as they have completed their careers.

Table 14. Occupational Class Of Respondents

	Company Survey	Random Survey	Combined Survey %	National Data 1982 %	Retired Survey %
Managers and Professionals	35.5	47.6	41.5	28.5	46.8
Other Non-Manual Workers	27.2	27.3	27.3	30.4	22.7
Manual Workers	37.3	25.1	31.2	41.1	30.5
			N = 1089		NR = 141

Basic Working Hours (Q9 and RQ10)

The basic hours worked by the Random Sample are, on average, a little less than for the Company sample as seen in table 15. This is to be expected from the larger percentage of manual workers, who tend to work longer hours, in the Company sample. No relationship is found between basic hours of work and workers preferences except that workers' choice of working hours is related to their actual hours to better than 1% significance. As one would expect the retired workers have a higher proportion who had a basic working week of over 40 hours, an indication of the trend towards shorter basic hours.

It is found that 54% of the workers do no overtime, 13% work over 6 hours overtime and the remaining 33% are divided fairly evenly over 1 to 5 hours of overtime.

Table 15. Basic Hours Worked By Respondents

Basic Hours	Company Survey %	Random Survey %	Combined Survey %	Retired Survey %
Less than 31	7.8	12.7	10.2	8.6
31 - 36	9.2	14.2	11.7	10.7
37 - 38	30.8	36.6	33.7	21.4
39 - 40	38.8	20.3	29.6	22.9
More than 40	13.4	16.2	14.8	36.4
			N = 1090	NR = 140

Days Worked Per Week (Q11)

About 98% of respondents work usually or frequently on each weekday (Monday to Friday). Frequent weekend work is restricted to about 27% on Saturdays and 12% on Sundays. Table 16 shows that about half the workers never work on Saturdays and two thirds never work on Sundays. It is seen later (p89) that this probably influences attitudes towards the prospect of future work on these days.

Table 16. Percentage Of Workers Employed On Weekdays And Weekends

	Weekdays %	Saturdays %	Sundays %
Usually Work	93.1	13.2	4.5
Fairly Often Work	4.9	14.3	7.2
Occasionally Work	1.2	26.0	19.3
Never Work	0.8	46.5	69.0
		N = 1071	

Holidays Per Year (Q 12 and RQ 11)

The holidays, excluding Bank holidays, of the respondents are given in table 17. The high incidence of long holidays in the retired group probably reflects the fact that longer holidays are usually associated with years of service or more senior jobs. Surprisingly the number of days holiday a person has appears to have no significant effect on the choice of leisure option, i.e. those with long holidays still prefer additional holidays to other forms of leisure time (p83 refers).

Table 17. Holidays Of Respondents In Present Or Last Job

	Workers Employed %	Workers Now Retired %
Less than 11	3.0	1
11 - 15	5.4	14
16 - 20	23.8	12
21 - 25	42.0	27
26 - 30	15.5	23
Over 30	10.3	23
	N = 1073	NR = 141

Travelling Time Between Home And Work (Q 13)

In assessing the advantages of working fewer days some consideration should be given to the time saved by avoiding some travel between work and home. Table 18 shows that most people spend less than one hour per day on such travel; an average double journey occupying about 50 minutes each day. Surprisingly no relationship is found between travelling time and other variables. There is a higher percentage of longer journeys in the Random Sample suggesting that more people commute from Reading than to it.

Table 18. Workers' Travelling Time Between Home And Work

Travel Time	Company Survey %	Random Survey %	Combined Survey %
Less than 20 mins.	23.6	20.2	21.9
20 - 39 mins	33.0	32.0	32.6
40 - 59 mins	24.5	16.5	20.5
1 - 1½ hours	12.9	13.7	13.3
1½ - 2 hours	3.6	6.9	5.2
2 - 2½ hours	2.0	4.7	3.3
2½ - 3 hours	0.4	2.6	1.5
3 - 4 hours	0.2	3.0	1.6
More than 4 hours	0.0	0.2	0.1
			N = 1086

Experience Of Shift Work (Q 14)

Because it was possible that restructuring the working week might require workers to operate some variant of shift work, respondents were asked if they had experience of shift working. There is very good agreement between the shift work experience of the workers in the two samples as demonstrated in table 19. As is to be expected, men have more experience of shift work than women.

Table 19. Workers' Experience Of Shift Work

	Company Survey %	Random Survey %	Combined Survey %	Men %	Women %
None or little	63.8	61.8	62.8	57.0	75.6
About 3 months	4.0	3.4	3.7	3.9	3.0
" 6 "	2.2	4.5	3.3	2.9	3.6
" 1 year	4.0	3.9	4.0	4.3	3.3
" 1½ "	2.2	2.8	2.5	3.1	1.5
2 or more years	23.8	23.6	23.7	28.7	13.1

N = 1089

Time Of Starting Work (Q 15 and Q 24i)

As a restructured working week might also require workers to work less sociable hours an attempt was made with questions Q15 and Q16 to find the earliest starting times and finishing times workers would consider by offering financial incentives. It is found that most of the workers cannot be persuaded to start before 7.0 a.m. but there is some prospect of getting workers to start work a little earlier as a comparison of the earliest acceptable times and the earliest actual times suggests (table 20). Manual workers are prepared to start work earlier but those in Professional and Managerial posts are found to be less prepared to do so. Using collapsed data, preferences for the time to start work given in table 20 for the two samples are only just over 1 standard error apart.

Table 20. Workers' Time Of Starting Work

	Earliest Acceptable Time			Earliest Actual Time
	Company Survey	Random Survey	Combined Survey	
Before 7	33.2 ±2.0	28.0 ±1.9	30.6 ±1.4	28.3 ±1.4
7 to 8	56.5 ±2.1	61.3 ±2.1	58.9 ±1.5	49.5 ±1.5
After 8	10.3 ±1.3	10.7 ±1.3	10.5 ±0.9	22.2 ±1.2
			N = 1074	N = 1088

It is found from the combined survey results in table 21, to better than 1% significance, that expressed preferences of the time to start work are related to work experience e.g.30.6%. of the workers are willing to start work before 7 a.m. and of these 58.3% already have experience of doing so.

Table 21. Actual And Chosen Starting Times At Work

Earliest Acceptable Time		Actual Start Times		
		Before 7 a.m.	7 to 8 am.	After 8 a.m.
Before 7 a.m.	30. 6%	58.3%	36.2%	5.5%
7 to 8 a.m.	58. 9%	15.7%	61.4%	22.9%
After 8 a.m.	10.5%	9.0%	26.1%	64.9%

N = 1074 and 1088

This is one of the "Chicken and Egg" situations referred to at page 67. One cannot say whether the experience determined the choice of starting time above or the choice of a job with those hours led to the experience.

Latest Time Of Finishing Work (Q 16 and Q 24ii)

It can be seen in table 22 that about 50% of the workers would choose to finish work between 6 and 8 p.m. but only 20% after 8 p.m. even though 42% of them have experienced finishing work this late. The financial incentive of double pay for unsocial hours in Q 24(ii) appears to be ineffective in persuading workers to give up part of their evening time.

Table 22. Workers' Time For Finishing Work

	Latest Acceptable Time			Latest Time Experienced
	Company Survey %	Random Survey %	Combined Survey %	
Before 6 pm	33.3 ± 2.0	28.2 ± 1.9	30.7 ± 1.4	23.0 ± 1.3
6 - 8 pm	48.1 ± 2.1	50.3 ± 2.1	49.2 ± 1.5	35.7 ± 1.4
After 8 pm	18.6 ± 1.6	21.5 ± 1.8	20.1 ± 1.2	41.7 ± 1.5
			N = 1058	N = 1088

As in the previous section there is similar close agreement, about 1 standard error, between the two samples and, in table 23, a relationship to better than 1% significance between experience and choice. It can be seen from the table 23 that 20.1% are willing to work beyond 8.0 pm and of these 77.3% have already done so.

Table 23. Actual And Chosen Finishing Times At Work

Latest Acceptable Time		Latest Actual Finish Time		
		Before 6 pm	6 to 8 p.m.	After 8 pm
Before 6 p.m.	30.7%	41.0%	29.8%	29.2%
6 to 8 p.m.	49.2%	19.3%	45.7%	35.0%
After 8 p.m.	20.1%	4.8%	17.8%	77.3%

N = 1058 and 1088

PREFERENCES FOR WORK AND LEISURE

Preference For Various Ways Of Obtaining Leisure (Q17 and RQ13)

This key question was presented three times to both those in employment (table 24) and to those who had retired (table 25); repetition was to obtain a measure of how strongly people felt about their choice. Workers were asked how they would like to receive additional leisure. Three options were offered which were roughly equivalent in time; ½ hour less work per day, 15 days extra holiday and retirement 2 years earlier. After they had chosen they were offered two further allocations of leisure and asked to show their preference again.

It is found (table 24) that the initial choice is overwhelmingly (64.9%) in favour of 2 weeks extra holiday each year. Additional increases of two weeks holiday receive much support in later choices but retirement 2 years earlier slowly gains ground from 20.5% until, by the third choice, 37.0% choose this mode of extra leisure. A reduction in working hours of ½ hour each day is not popular at any time. This reinforces the argument that workers prefer large parcels of time, which can be used more profitably rather than to have a little extra leisure each day which may easily be dissipated. A similar change of choice is not found with pensioners (table 25) but the third choices in both cases are very similar; the reason for this is not apparent.

Table. 24. Workers' Changing Preferences For Leisure Options

	1st Allocation	2nd Allocation	3rd Allocation
½ hour less each day	14.6 ± 1.0	24.8 ± 1.3	24.8 ± 1.3
15 days more holiday	64.9 ± 1.4	47.2 ± 1.5	38.2 ± 1.5
Retirement 2 years earlier	20.5 ± 1.2	28.0 ± 1.4	37.0 ± 1.5
	N = 1090	N = 1087	N = 1081

Table 25. Pensioners Changing Preference For Leisure Options

	1st Allocation	2nd Allocation	3rd Allocation	Average
½ hour less each day	22.9 ± 3.5	26.4 ± 3.7	26.7 ± 3.8	25.2
15 days more holiday	43.8 ± 4.1	40.0 ± 4.1	36.3 ± 4.1	40.9
Retirement 2 years earlier	33.3 ± 3.9	33.6 ± 4.0	37.0 ± 4.2	34.6
	NR = 144	NR = 140	NR = 135	

The two samples obtained by Company and Random distribution are again within 1 standard error, this time using the sum of the three votes on leisure options.

Table 26. Workers' Preferences For Extra Leisure (Sum of 3 results)

	Company Survey %	Random Survey %	Combined Survey %
½ hour less each day	21.7 ± 1.2	21.1 ± 1.2	21.4 ± 1.2
15 days holiday per year	51.1 ± 1.5	48.6 ± 1.5	49.8 ± 1.5
Retirement 2 years earlier	27.2 ± 1.3	30.3 ± 1.4	28.8 ± 1.3

Average N = 1086

The only highly significant (1%) relationships found between the respondents background and work experience, and their choice of leisure option are for sex, age and education. Table 27 shows the detailed breakdown of the relationship between the first choice of leisure, and age and sex.

Table 27. Relationship Between Age And The First Choice Of Leisure Option For Males And Females

	Age In Years					
Male	16-24	25-34	35-44	45-54	55 +	"Retired"
Shorter Day	22.8	13.6	10.9	12.1	15.0	20.9
Longer Holiday	65.8	73.2	67.9	51.5	37.4	41.7
Earlier Retirement	11.4	13.2	21.2	36.4	47.6	37.4
	N = 731					NR = 93
Female						
Shorter Day	12.8	19.6	16.9	15.7	14.3	26.4
Longer Holiday	84.9	74.2	74.0	55.7	39.3	47.2
Earlier Retirement	2.3	6.2	9.1	28.6	46.4	26.4
	N = 357					NR = 51

Both male and female preferences for holidays steadily reduce with age while interest in earlier retirement grows. However, once retired, people show less interest in retirement and an increased percentage would choose a shorter day or more holidays. Presumably the experience of retirement is not so attractive as retirement appears when one is working. At each age more men would choose early retirement than women who generally prefer more holidays.

Another relationship to better than 1% significance is that the choice of holidays at the expense of early retirement increases with educational qualifications and in consequence a better job.

Table 28. Relationship Between Education And The First Choice Of Leisure Option

	Lower Education	Medium Education	Higher Education
½ hour less each day	13.2 ±1.6	16.2 ±1.9	15.3 ±2.1
½ week extra holiday	60.5 ±2.3	64.5 ±2.5	72.9 ±2.6
Retirement 2 years earlier	26.3 ±2.1	19.3 ±2.1	11.8 ±1.9
	N = 1090		

Although some correlation has been found between education and occupation in many relationships from the survey it is interesting to note that the trend demonstrated in table 28 is a little less definite for Occupational class. The results suggest that education has slightly more influence on the choice of leisure than does occupation.

Table 29. Relationship Between Occupation And The First Choice Of Leisure Activity

	Professionals or Managers %	Other Non Manual Workers %	Manual Workers %
½ hour less each day	13.9 ± 1.6	16.0 ± 2.1	14.0 ± 1.9
15 days extra holiday	67.3 ± 2.2	66.2 ± 2.7	59.7 ± 2.6
Retirement 2 years earlier	18.8 ± 1.8	17.8 ± 2.2	26.3 ± 2.4

N = 1089

For retired persons a relationship appears to be found with past holidays per year. As holidays increase there appears to be less interest in additional holidays and more interest in earlier retirement which I unexpectedly failed to find from the workers survey. However, with only 141 retired respondents the sample is too small for the result in table 30 to be statistically significant.

Table 30. Relationship Between Holiday Experience And The First Choice Of Leisure By The Retired

Days / year	Shorter Days %	Extra Holidays %	Early Retirement %
Less than 15	26	42	32
16 - 20	25	56	19
21 - 25	14	62	24
26 - 30	34	22	44
Above 30	22	31	47

NR = 141

The findings of my workers survey on the first choice of leisure option contrasts markedly with the EEC Survey in 1977 (37) adjusted for the removal of an average of 6% "don't knows". It is possible that the difference is due to the four years separation between the surveys but more probably it is due to the mode of

questioning. A questionnaire completed at leisure, asking many inter-related questions on work and leisure, is very likely to stimulate a different response to that produced by just two of the questions taken in isolation and phrased differently. Another explanation is that cultural differences between the regions in the United Kingdom influence attitudes to work and leisure. This view is supported by the variation between the results obtained for each country in table 31 assuming the national surveys were similar.

Table 31. EEC Survey On Preferences For Reducing Working Time 1977

	Shorter Day %	Longer Holidays %	Earlier Retirement %
Belgium	33	23	44
Denmark	47	25	28
Germany	30	34	36
France	39	16	45
Ireland	54	25	21
Italy	37	24	39
Luxemburg	20	28	52
Netherlands	28	35	37
United Kingdom	47	25	28
(My Reading Workers Survey 1981/82)	15	65	20

The Choice Between Additional Income Or Leisure (Q18)

This second key question was also presented three times for the same reason as given for Question 17 and the results are given in table 32. The choice offered was between one of the leisure options of the previous question and a bonus of 2 weeks extra pay. It can be seen that additional leisure is more highly prized than additional income but the strong desire decreases as more leisure is obtained. Thus after additional leisure equivalent to one months extra holiday has been granted, extra income has the same utility value as extra leisure.

Table 32. Workers' Preferences For Extra Money Or Leisure.

	1st Allocation	2nd Allocation	3rd Allocation
Extra Leisure	74.3 ± 1.3	61.7 ± 1.5	51.1 ± 1.5
Extra Income	25.7 ± 1.3	38.3 ± 1.5	48.9 ± 1.5
	N = 1077	N = 1057	N = 1050

The Company and Random survey results again agree to 1 standard error and the results are given in table 33.

Table 33. Workers' Choice Between Extra Leisure And Income (Average of 3 Results)

	Company Survey %	Random Survey %	Combined Survey %
Extra Leisure	63.6 ± 1.2	61.3 ± 1.2	62.5 ± 0.9
Extra Income	36.4 ± 1.2	38.7 ± 1.2	37.5 ± 0.9
		Average N = 1063	

Unlike the choice of leisure option, no significant relationship is observed between either sex or age and the choice between extra income or leisure. This contrasts with Zabalza et al.(61) who conclude that age has a gradual effect on the marginal rate of substitution of leisure for income; old people preferring leisure to income. However, their sampling frame is restricted to people aged 50 to 73 whereas my own consists of people mainly between 18 and 65 years of age. As I expected, my survey shows that those with a higher standard of living, higher education and higher status occupation all have a higher preference for leisure; presumably because they have less need for more income. One example is shown in table 34 below. Nevertheless, leisure is still preferred to income even for the least affluent group.

Table 34. Relationship Between Standard Of Living And Their First Choice Of Income Or Leisure

	Above Average Standard Of Living	Average Standard Of Living	Below Average Standard Of Living
Extra Leisure	78.3 ± 2.0	72.2 ± 2.0	61.6 ± 3.8
Extra Income	21.7 ± 2.0	25.5 ± 2.0	34.0 ± 3.8
	N = 1076		

Comparison of my survey result with the EEC Survey of 1977 (37) again shows a marked difference (table 35) and my comments on table 31 similarly apply (p.83). The effect of differences of attitude with time are reported in the Economist (38) on surveys on leisure in Germany between 1962 and 1980.

Table 35. EEC Survey On The Choice Between Pay And Working Hours 1977

	Shorter Hours %	Better Pay %
Belgium	59	41
Denmark	72	28
Germany	61	39
France	57	43
Ireland	34	66
Italy	42	58
Luxemburg	23	77
Netherlands	70	30
United Kingdom	53	47
(Reading Survey 1981/82	74	26)

The high preference for leisure shown in my Reading Survey contradicts Stonier's (39) assertion that workers prefer extra money to leisure from productivity increases. However, in contrast, a random sample of about 1000 people was used in a 1980 Times/ORC poll (40) into attitudes to work, 46% of those answering the question said they would prefer shorter hours for the same pay instead of more money for the same hours.

Ease Of Sharing Work (Q 19)

It was necessary to ask workers how easy it would be to share their jobs because this was one option for reducing unemployment, the underlying reason for undertaking the research. Table 36 shows the response and the poor agreement between the Company and Random samples; just over 2 standard errors.

Table 36. Anticipated Ease Of Sharing One's Job

	Company Survey %	Random Survey %	Combined Survey %
Easy to share job	52.2 ±2.1	44.3 ± 2.1	48.3 ± 1.5
Don't know	9.9 ±1.3	6.9 ± 1.1	8.4 ± 0.8
Difficult to share job	37.9 ±2.0	48.8 ± 2.1	43.3 ± 1.5
			N = 1093

Those with higher education or a more senior job believed it would be more difficult to share jobs; the results in table 37 are to better than 1% significance.

Table 37. Relationship Between Education And Ease Of Sharing Jobs

	Higher Education	Medium Education	Lower Education
Easy to share job	29.9	49.7	59.2
Don't know	6.6	6.8	10.7
Difficult to share job	63.5	43.5	30.1
	N = 1093		

It is disappointing to find that 43% of respondents say job sharing would be difficult. However, of the 473 respondents who consider it would be difficult or impossible to share their jobs, 360 give some indication of their reasons which are closely examined later (Appendix 7). It is found that many of their reasons are not well founded for simple job sharing in the present employment structure and even less so should a $3\frac{1}{2}$ day week system be introduced. Possibly people dislike the idea that others can do their job and they may anticipate a loss of status and job satisfaction through job sharing. On the other hand most people have no experience of job sharing and may find the whole concept difficult to imagine; this may have influenced their answers. I must conclude from Appendix 7 that this question on job sharing was not well presented and to obtain more useful results the question should have been preceded by more information on how job sharing does and could operate for different types of occupation. Of course, this would not have fitted easily into the format used

for the questionnaire. Probably the only really adequate way of deciding whether a job can be shared would be by interviewing respondents to discover the tasks they perform and the responsibilities they hold. Proposals for how their jobs could be shared could then be put forward for their acceptance or refutation.

Preference For Leisure Activities (Q 20 and RQ 14)

A question was included in the worker's survey to find which leisure activities respondents thought would occupy increased allotments of free time. For comparison a question was included in the survey of pensioners asking them how they occupied their free time. As distinct differences were observed between men and women these are also shown in table 38. The questions were put four times to each person but the replies are aggregated; the results show the percentage of respondents who selected each option.

Table 38. Expected And Actual Use Of Additional Leisure Time

	Male Workers as %	Male Retired as %	Female Workers as %	Female Retired as %
Do-it-yourself	57	60	28	15
Travel	81	41	79	40
Watching Sport	20	13	10	2
Taking part in sport	41	11	32	6
Hobbies	70	83	73	87
Reading	33	59	57	45
Study	22	15	32	38
TV or HiFi	28	59	26	66
Pubs And Clubs	17	11	12	11
Concerts, Cinemas	23	5	43	17
Miscellaneous	6	11	7	40
	N = 732	NR = 92	N = 354	NR = 53

One should note that expectations for male and female workers do not correspond with what retired persons do with their spare time. Retired people travel less, have less interest in sport, attend concerts and cinemas less, read more, and watch TV and listen to music more. While age is undoubtedly one reason for the difference

it is interesting to record that apart from taking part in sport the choice of workers over 55 years of age is little different from younger persons. Of further interest is a comparison with the R. Poor survey on page 47. The differences between the UK and US workers could be due to economic, cultural or environmental factors.

Attitudes To Weekend Working(Q21 And Q22)

Under a hypothetical 3½ day working week system all facilities would operate for 7 days per week using two sets of workers. This would require half the workers to work on Saturdays and Sundays although they would get other days off for their "weekends". Questions were put to assess how strongly people would resist working on the traditional weekend days, and to learn the reasons for their attitude; table 39 shows, to 1% significance, that men are a little more willing to work at weekends than women. It can be seen that 43.3% (2.2 + 41.1) of males are prepared to work on Sundays but only 27.4% (1.8 + 25.6) of women are so prepared. However, when compared with actual practise (p 76) one sees that there is potential for increasing weekend working. No other simple relationship is found between attitudes to weekend work and other variables but both younger and older workers appear to reject weekend work the most strongly.

Table 39. Willingness To Work At Weekends.

	Never	Saturdays only	Sundays only	Work both days
Males	34.8%	21.9%	2.2%	41.1%
Females	45.2%	27.4%	1.8%	25.6%

N = 1094

To assess the strength of the objections to weekend work, those who objected were offered additional holidays to persuade them to work at weekends. Few are influenced by 1 week's holiday, more respond to 2 or 3 weeks' holiday but a large hard core remain who strongly resist weekend work, (see table 40). Women are more difficult to persuade than men, supporting the conclusion above that they are generally more strongly opposed to weekend work.

Table 40. Persuasion Needed To Get Some Workers To Work At Weekends.

		1 week %	2 weeks %	3 weeks %	Cannot be persuaded %
Extra holiday required to work on Saturdays	Male	2.5	8.2	19.7	69.6
	Female	4.3	9.4	5.1	81.2
	N = 402				
Extra holiday required to work on Sundays	Male	2.8	6.3	15.1	75.7
	Female	1.7	6.2	9.0	83.1
	N = 514				
Extra holiday required to work on both days	Male	0.6	2.8	12.0	84.2
	Female	0.5	1.6	8.2	89.7
	N = 521				

Those opposed to working on any weekend day were asked to give their reasons. Table 41 lists the reasons given by 481 people and shows the percentage of times a particular reason was chosen;

Table 41. Reasons For Not Wanting To Work At Weekends.

	Saturdays %	Sundays %	Both days %
Young children of school age	28.2	24.2	23.4
Religion	0.4	9.1	6.8
Sport And Social Activities	29.8	19.3	23.3
Contact With Friends And Relations	33.8	39.5	38.2
Other Reasons	7.8	7.9	8.2
N = 481			

personal contacts are clearly of most importance to responders while religion influences the choice of very few. Comment on the reasons given were received from 109 respondents and these are considered later (p162) when I examine the implications of attitudes to weekend working for the $3\frac{1}{2}$ day working week.

As found earlier, people's choices regarding weekend work appear to be strongly influenced by their current practice. There is a high correlation between Sunday workers and their choice of Sunday work. Only 25% of those with no experience of Sunday work would consider working on Sundays. Similarly only 20% of those with no experience of Saturday work would choose to work on that day. In contrast, of those with the relevant experience, 86% would work on Sundays and 83% would work on Saturdays. This does not necessarily mean that those without experience now of weekend work would change their attitudes once they had gained such experience.

This is the second case where it might have been advisable to have given respondents additional information before asking the question; ease of sharing one's job (p86) was the first. It was in these questions, where I foresaw the need for understanding of new concepts, that I invited respondents to add comment. The desirability of further information for respondents is suggested by the comments received (p.162) and Appendix 7. In expressing their views on weekend working (Q21 and Q22) respondents naturally thought they would be exchanging a traditional weekend day for a traditional week day. As most sports and social occasions now take place at the two day weekend it is not unexpected to find some reluctance to give up one or both of these days.

However, it is shown later for the 4 day week (p.148) and even more so for the $3\frac{1}{2}$ day week (p.160) that the weekend as we now know it would change. Where these systems operate the additional leisure for all workers would be spread over the whole week. Thus, every week day would be a "weekend" day for someone. It is expected that sport and social events would expand to meet the extra demand for leisure activities. Under these new circumstances I believe there would be a greater willingness to work on a Saturday or Sunday. My postal survey precluded the investigation of this aspect of reduced working hours in sufficient depth.

Maximum Hours Per Day Workers Are Willing To Work (Q23)

Proposals to give workers more useful parcels of time rather than shorter days could lead to a 3 day weekend with longer hours each day. Therefore a question was included in the questionnaire to discover workers attitudes to a longer working day.

Table 42. Maximum Hours Per Day Workers Willing To Work

	Company Survey %	Random Survey %	Combined Survey %	Male %	Female %
Up to 8 hours	31.2	33.8	32.5	23.9	50.3
8 to 9 hours	36.3	35.4	35.8	36.0	36.2
Over 9 hours	32.5	30.8	31.7	40.1	13.5
			N = 1023		

The results for the two surveys agree to within 1 standard error and the male willingness to work longer hours per day is significant to 1%. A similar degree of confidence in the result is found for the relationship with age; as the age of workers increases there is less willingness to work over 9 hours.

Table 43. Relationship Between Age And Acceptable Maximum Hours Of Work Per Day

	Up to 8 hours %	8 to 9 hours %	Over 9 hours %
16 - 24	26.8	38.2	35.0
25 - 34	26.4	39.6	34.0
35 - 44	33.8	34.6	31.6
45 - 54	41.7	29.7	28.6
55 +	38.4	36.0	25.6
	N = 1021		

Importance Of Improving Weekends (Q25)

The problem of overcrowding, etc at weekends is referred to earlier (p49) and arguments put forward to show that the problems could be reduced by spreading the weekend over the whole week. To see how strongly people felt regarding an improvement to weekends they were asked how much longer they would be willing to work during the week to gain improvement. Over half the respondents are willing to make a sacrifice to improve the weekend and nearly a quarter of them are prepared to work at least 3 hours extra per week to do so; the results appear in table 44. The Company and Random surveys differ by just over 1 standard error. No correlation is found with sex or age.

Table 44. Extra Work Per Week Workers Would Do To Improve The Weekend

Extra Hours Of Work	Company Survey %	Random Survey %	Combined Survey %
None	40.5 ± 2.1	45.1 ± 2.2	42.7 ± 1.5
Up to 2½ hours	37.2 ± 2.1	30.9 ± 2.1	34.2 ± 1.5
3 hours or more	22.3 ± 1.8	24.0 ± 1.9	23.1 ± 1.3
			N = 1062

Total Working Hours Per Week Preferred (Q26i)

The working hours preferred by worker respondents in the two surveys agree to within 1 standard error. It is noticeable that about 25% of workers are prepared to work over 40 hours per week while 8% choose to work over 50 hours. As for hours per day, the desire for long hours per week declines with the age of the worker, and on average men choose longer hours than women

Table 45. Workers' Preferred Number Of Working Hours Per Week

	Company Survey %	Random Survey %	Combined Survey %
Less than 31 hours	15.4	18.8	17.1
31 to 36 hours	19.7	18.7	19.2
37 to 38 hours	17.0	17.1	17.1
39 to 40 hours	24.3	21.5	22.9
41 or more hours	23.6	23.9	23.7
			N = 1083

Number Of Days Per Week Preferred For Work (Q26ii)

Once again the results from the two surveys agree to within 1 standard error. 45% of workers wish to work less than 5 days per week; this is for an estimated average week of about 37 hours. It is the younger workers who choose the larger number of working days but this is consistent with them choosing also the larger number of hours per week. There is no significant difference between the preferences of men and women. As longer working hours are linked to higher pay in the questionnaire the

choice of longer hours by younger workers is probably related to their greater need for monay.

Table 46. Workers' Preferred Number Of Working Days Per Week

	Company Survey %	Random Survey %	Combined Survey %
1 day / week	0.5	0.8	0.6
2 days / week	0.7	0.6	0.6
3 days / week	6.2	6.3	6.2
4 days / week	37.6	38.3	38.0
5 days / week	49.2	50.8	49.9
6 or 7 days / week	5.8	3.2	4.5

N = 1078

Preferred Hours Of Work Near Retirement (Q27, RQ17 and RQ18)

There is agreement to within 1 standard error for the Company and Random samples but there is considerable difference between these results and those from retired persons. It appears in table 47 that 40% of retired people prefer sudden retirement while only 27% of those in work choose that option. This could be another case of actual practice influencing attitudes because 85.4% of the retired workers in fact retired suddenly, and only 14.6% gradually. Supporting evidence for this view is given in table 48 where categories of gradual retirement have been combined to show relationships more clearly.

Table 47. Hours Of Work Preferred Near Retirement

	Company Survey %	Random Survey %	Combined Survey %	Retired Survey %
Normal hours to retirement	27.9	25.7	26.8	40.8
Reduce hours per day near retirement	9.6	9.7	9.6	12.0
Work 1 day less near retirement	62.5	64.6	63.6	47.2

N = 1089 NR = 142

Of the 85% who retired suddenly only 44% would choose to do so again while of the 14.6% who retired gradually 80% would do so again. No firm conclusion can be drawn from this because the

retired responders are too few for reliable analysis. However, there is no doubt overall from this question that people have a preference for gradual retirement.

Table 48. Influence Of Retirement Experience On Retirement Choice

Actual Mode Of Retirement		Chosen Mode Of Retirement	
		Sudden %	Gradual %
Sudden	85%	44	56
Gradual	15%	20	80

NR = 142

These results agree very well with those of S.R. Parker (35); he finds that a 2 to 1 majority of all workers would like to taper off their working hours or days per week rather than switch all at once from full-time work to none at all. Just over half of all those who are retired said that they would have preferred to have done so gradually (See table 79).

Preferred Retirement Age (Q 28 and RQ 19)

One of the options for reducing unemployment is early retirement but enforced early retirement would probably not be universally popular. However, a flexible approach to retirement is worth investigating as this option would give men, say, the opportunity of staying at work beyond 65 years of age or leaving earlier than usual according to their health or social needs. As people's choice of retirement age is likely to be different depending on whether a pension is fixed or related to age both these possibilities are investigated.

Table 49. Workers' Choice Of Retirement Age When There Is An Age Related Pension

Retirement Age	55	57	59	61	63	65	67	69	71	Never
Company Survey	27.7	5.0	9.8	18.4	5.9	17.7	1.7	1.8	3.3	8.7
Random Survey	27.7	4.7	11.2	17.8	5.3	17.3	2.1	1.7	3.2	9.0
Combined Survey	27.7	4.8	10.5	18.1	5.6	17.5	1.9	1.8	3.2	8.9

N = 1075

The two samples give percentages which agree to within 1 standard error supporting the combination of the surveys in the other tables.

Considering that the State Pension age for men and women differs by 5 years there is little difference between their preferences for retirement age as seen below. The main difference is that more women choose to retire at 55 while more men never wish to retire at all; between these extremes the preferences are remarkably similar.

Table 50. Male And Female Workers' Choice Of Retirement Age On A Fixed Pension

	55	57	59	61	63	65	67	69	71	Never
Males	34.6	2.6	10.5	17.1	4.2	13.9	0.7	1.0	2.6	12.8
Females	46.4	4.3	9.7	15.1	2.0	11.7	1.1	0.6	2.3	6.8

N = 1086

The effect of age on choice of retirement age is much more marked; collapsed data are used to demonstrate this in tables 51 and 52 which show the relationship between respondents age and preferred retirement age for both fixed and age related pensions. It is apparent that attitudes change particularly as retirement age is approached. Preferences of those in retirement are much closer to the views of those of 55 years of age and above than to younger workers. These findings are significant to 1% as is the effect of the increased pension under an age related scheme. Gordon and Blinder (69) in a 1980 study of US males conclude that age is a major factor in the decision to retire but retirement age is also influenced by the availability of an occupational pension. Zabalza et al (61) similarly conclude age is a major factor (see p.124).

Table 51. Relationship Of Age And Preferred Retirement Age For Workers On A Fixed Pension

Age	55 %	57-59 %	61-63 %	65 %	67-71 %	Never %
16-24	37.3	13.7	15.5	14.9	8.0	10.6
25-34	39.8	6.7	20.3	14.1	4.3	14.8
35-44	42.7	15.5	17.1	11.8	4.2	8.7
45-54	40.0	17.5	21.0	11.0	2.0	8.5
55 +	26.2	18.7	29.1	14.9	2.1	9.0
Retired	21.1	15.5	23.2	21.8	8.5	9.9

N = 1086

Table 52. Relationship Of Age And Preferred Retirement Age For Workers On An Age Related Pension

Age	55 %	57-59 %	61-63 %	65 %	67-71 %	Never %
16-24	24.2	14.3	19.9	20.5	9.3	11.8
25-34	30.9	9.7	20.6	19.7	8.8	10.3
35-44	32.2	18.0	21.5	14.5	6.9	6.9
45-54	29.0	19.5	27.0	14.0	3.0	7.5
55 +	13.7	18.3	35.9	19.8	5.4	6.9
Retired	12.9	15.7	30.0	22.9	12.1	6.4

N = 1075

Fewer people wish to retire early, irrespective of their age when an addition to the pension is possible by working extra years; the average effect on retirement age is 3 years for all age groups. There is not much difference between age groups as seen below.

Table 53. Average Delay In Retirement Age Encouraged By The Age Related Pension

Age Group	16-24	25-34	35-44	45-54	55+	Retired
Delay in years	3.5	2.4	2.7	2.0	4.3	3.3

One may deduce that shortly before retirement i.e. 55 +, workers are becoming concerned about their financial position when retired and therefore contemplate a longer delay to retirement to enhance their pensions. Pensioners, however, while wanting an increased pension, would not have delayed retirement quite so long. Presumably the economics of retirement may not be quite so bad as those near retirement believe. Of course, a longitudinal study would be required to confirm this. A similar trend is observed for males and females separately and the average delay for both is 3 years. The following table shows that the preferred retirement age for retired men and women is similar to that of workers in table 50 in that more women would choose to retire early and more men would prefer never to retire.

Table 54. Retired Male And Female Choice Of Retirement Age On A Fixed Pension

Age Of Retirement	55 - 58 %	59 - 62 %	63 - 66 %	67 - 71 %	Never %
Males	19	26	31	11	13
Females	33	28	31	4	4

NR = 142

The choice of retirement age for both retired men and women is found to be related to their past occupation and the age at which they actually retired to 1% significance. Manual workers choose to retire several years later than others, possibly because pension prospects are poorer. This is supported by the finding that 54% of retired manual workers who would like a part-time job do so to obtain money for essentials.

Workers' Reasons For Choice Of Retirement Age (Q28)

Respondents were asked to indicate their reasons for selecting one of the earlier retirement ages. These are given below in the order of the percentage choosing them.

Would like more time for leisure	41.8%
Leisure is more important than money	38.9%
Work is tiring or a strain on health	12.5%
Work is boring or unsatisfying	6.8%

Reasons are also given by those who prefer to remain at work rather than retire early.

Work gives a purpose to life	32.4%
Need money to enjoy leisure	27.8%
Work provides companionship	19.9%
High standard of living wanted	19.9%

S.R. Parker (35) finds that answers connected with money are the most frequent reasons given for working after pension age, about 48% (cf 47.7% above, 27.8% + 19.9%). The desire for companionship was mentioned by 25% (cf 19.9% above). A strict comparison is, of course, not possible because Parker's survey covers only workers at least 50 years old while my survey includes younger people.

Actual Retirement Age (RQ5)

The ages recorded from the survey of the retired are as follows :-

Table 55. Age At Which Pensioners Had Retired

	Males %	Females %
Less than 58 years	6 ± 2	16 ± 5
58 to 61 years	16 ± 4	68 ± 6
62 to 64 years	25 ± 4	10 ± 4
Above 64 years	53 ± 5	6 ± 3
NR =	144	

Only 8% of men and 16% of women had retired above the State Pension Age. The small number of respondents results in large standard errors but the trends remain clear; the State Pensions at 60 for women and 65 for men apparently have a major influence on retirement age.

There is little evidence that the actual age of retirement is related to any attribute apart from the preferred age of retirement. Those who had retired later than the State Pension age indicate that they would do so again and vice versa; this relationship was 1% significant.

Length Of Retirement (RQ6)

Retired respondents were asked to state how long they had been retired to see if attitudes changed with the length of retirement. The main relationship observed is that the longer people have been retired there is less desire for a job. Of those retired less than a year 27% would like to work 17 hours or more per week. This proportion falls to 8% for those who have been retired for 2 to 4 years and after 4 years only 2% choose this option. The ability to make good use of leisure also appears to increase with the length of retirement. Of those who have been retired for up to 1 year only 9% give 'good use of leisure' as a reason for not wanting a job; after 2 to 4 years retirement this rises to 38% and beyond 4 years it is 42%. As shown in table 56 about 80% of the retired respondents have been pensioners for over 2 years and therefore should have been well conditioned to retirement.

Table 56. Number Of Years Pensioners Had Been Retired.

	Males %	Females %
Less than 2 years	17 ± 4	28 ± 6
2 to 4 years	36 ± 5	29 ± 6
Over 4 years	47 ± 5	43 ± 7

NR = 145

Retired Respondents Need For A Job (RQ15)

Consideration of flexible retirement (p.35) led to this question to find out the extent to which retired people would like to return to work.

Table 57. Hours Of Work Per Week Wanted By The Retired

	Males %	Females %
0 hours	55 ± 5	54 ± 7
1 to 16 hours	31 ± 4	38 ± 6
17 to 30 hours	11 ± 3	6 ± 3
Above 30 hours	3 ± 2	2 ± 2

NR = 145

Of those wanting work about 66% want it for 2 or 3 days indicating a large potential part-time labour force; an important factor in later discussion (p.156). The full results for the choice of the number of working days is as follows :-

Table 58. Number Of Work Days Wanted By The Retired

Days of Work	1	2	3	4	5
Respondents %	5	34	32	11	8

NR = 66

Reasons For Wanting Or Not Wanting Work By Retired Respondents (RQ 16)

Although it appears in table 59 that women would be less willing to be tied to a job this conclusion is not statistically significent because of the small sample size, 41 males and 23 females. However, it is of interest to note that about 17% of retired persons of both sexes in the Parker survey (35) said that they had no need for extra money.

Table 59. Main Reasons The Retired Do Not Want Work

	Males %	Females %
No need for extra money	23	21
Would not wish to be tied to a job	12	26
Can make good use of leisure	52	41
Have poor health	7	7
Lack confidence to return to work	3	5
Other reasons	3	0

NR = 72

It may be that, as table 60 indicates, women really do require more money for luxuries and men require more for essentials but again the results are not statistically significant due to the sample size. There are similar qualifications to the apparent preference of women for companionship and men for something useful to do.

Table 60. Main Reasons The Retired Want Work

	Males %	Females %
Need money for essentials	19	10
Need money for luxuries	12	20
Bored with too much leisure	8	3
Would like to meet more people	19	27
Would like to do something useful	41	25
Work would give more respect	0	10
Other reasons	2	5

NR = 70

Willingness To Help The Unemployed (Q29)

In trying to restructure working hours to provide work for the unemployed, it is likely that those currently in work would have to make a small sacrifice. Therefore, a question was put asking if workers would give up one day's pay per month in exchange for one day's less work. Women are apparently more sympathetic towards the unemployed than are men; 76.0 ± 1.3% of women and 54.8 ± 1.5% of men are willing to give up money in exchange for leisure. On the other hand the percentages may just reflect the strength of the desire for leisure. However, it is interesting to note, (p 85) that about 74% of both men and women are reported as preferring extra leisure to extra money. One explanation is that women are more consistent regarding this choice. Of course, it may be that men are not willing to take a drop in income in order to obtain more leisure but they may be willing to forsake extra income in order to so do. The number of those willing to make a sacrifice to help the unemployed may, in fact, be underestimated. A few respondents who indicate they are unwilling to help add comments to say that they are unwilling because they do not think it would be possible to assist the unemployed by this method. An unknown number of other respondents may have acted similarly without commenting.

The results from the Company and Random Distribution are once more within 1 standard error as seen in the table below.

Table 61. Workers' Willingness To Help The Unemployed.

	Company Survey %	Random Survey %	Combined Survey %
Willing to help unemployed	62.2	61.3	61.8
Not willing to help unemployed	37.8	38.7	38.2

NR = 1093

From time to time in the National Press there appear articles supporting the view that workers may be prepared to make a small sacrifice to help those on the dole. A recent example is of a furniture factory where employees voted 67 to 35 to reduce their

pay by 5% allowing more staff to be employed (185).

Proposals On Working Patterns By Respondents (Q30)

An open ended question (Q30) was included in the workers questionnaire in which respondents were asked to mention any change to working hours that they would like introduced. 252 made comments of which 225 are relevant, 51 propose early retirement, 51 propose a restructured week such as 4 day working or 2 shifts covering the whole week, and 98 suggest flexitime. Although flexitime is obviously a subject of popular interest this aspect of work patterns has not been included in this paper. There is no doubt that flexitime does improve the quality of life for workers but it makes no contribution to the unemployment problem. The less frequent comments by respondents include 13 proposals for overtime reduction, 6 for Sabbaticals and 4 for some form of National Service.

UTILISATION OF THE RESULTS

Much information has been obtained from the surveys on people's preferences regarding work and leisure. A key result to emerge (p80) is that the greatest preference for more leisure is via additional holidays, the second choice is for early retirement while the least popular is shorter working days. The implications of these preferences and others are considered in the next two chapters.

Early retirement is discussed first in detail, in Chapter 4, because this turns out to be the option that is most acceptable to employers (p128), that is reasonably supported by workers in my survey (table 26), and that would most easily result in jobs for the unemployed. This discussion is followed in Chapter 5 by consideration of the economics and social implications of various ways of giving workers additional leisure time each year (p139) In both cases recourse is made to the results of my Reading survey although there is no strong evidence that the results apply equally to the whole of the United Kingdom. However, some of the results are shown to agree with those from national surveys. Where conclusions are based on my survey results alone one must not forget that regional differences in attitudes to work and leisure may exist.

Chapter 4

Older workers and early retirement

INTRODUCTION

Retirement is one of the most important events in a person's life yet it is an event over which he or she seldom has control. Employers rarely allow employees the luxury of choosing when to retire. Even when they do allow early retirement, pensions are often reduced and many would-be-retirers cannot afford to stop working. Employers normally retire men at 65 and women at 60 years of age in the U.K. This is seldom challenged because these are the ages when State pensions become available. Although these pensions are not linked to mandatory retirement ages, employers tend to regard 65 and 60 as the normal ages for retirement.

There has been a considerable reduction in working time during this century. Hours per day and days per week have both been cut; in addition there has been a large increase in paid holidays. However, the accepted age of retirement has only fallen from 70 to 65 since 1908 when State pensions first became available under the Old Age Pensions Act. There is now pressure from the TUC (p.188) to lower the male pensionable age and, in consequence, the normal retirement age in order to provide jobs for the unemployed. They wish to replace those unwillingly unemployed, on the dole, by those willingly unemployed, or early retired, by new legislation. The immediate introduction of a common retirement age of 60 for both men and women is advocated by them, together with the longer term possibility for both sexes to retire as early as 55. The implications of providing opportunities for earlier retirement are investigated below in relation to preferences expressed in my surveys on workers and pensioners described in pages 94 to 103.

DEMOGRAPHIC TRENDS

There has been a considerable increase in the elderly as a percentage of the total population between 1911 and 1981 as shown in table 62. This has been due to falling birthrates combined with a greater expectation of life due to better social conditions and health care.

Table 62. Elderly Population, United Kingdom 1911 - 2001

	Actual				Projected		
	1911	1931	1951	1971	1981	1991	2001
Men at least 65 (Thousands)	964	1470	2251	2821	3246	3351	3246
Women at least 60 (Thousands)	1915	2950	4559	6234	6613	6629	6293
Total Elderly	2879	4420	6850	9055	9859	9980	9539
Elderly as % of total population	6.8	9.6	13.6	16.3	17.7	17.6	16.6
Elderly as % of working population	11.0	14.5	21.3	27.2	29.4	28.8	27.6

Source: Population projections 1977 - 2017 OPCS 1979

These figures counter the commonly expressed view that the ratio of pensioners to the working population is ever increasing. Admittedly the rise in the number of pensioners from 1911 to 1981 has been phenomenal but a plateau has now been reached. Andreas Smith (43) further refutes the argument that pensioner numbers are placing an increasing financial burden on the working population. Figures prepared by Prof. Bernard Benjamin (64) for a seminar on pensions in 1983 are quoted by A. Smith to show that the percentage of people supported by the working population has fallen steadily between 1901 and 1981.

Table 63. Economic Burden Of The Dependent Population In The U.K.

	Total People	Children Under 15	Unemployed Females	Retired	Workers	$\frac{\text{Dependents}}{\text{Workers}}$
1901	38.2	12.4	7.7	2.4	15.7	1.43
1921	44.0	12.3	9.5	3.5	18.7	1.35
1931	46.0	11.2	9.8	4.4	20.6	1.23
1951	50.2	11.3	9.2	6.8	22.9	1.19
1961	52.7	12.4	8.6	7.7	24.0	1.20
1971	55.5	13.4	7.3	9.0	25.8	1.15
1981	56.3	11.6	8.3	10.0	26.4	1.13
2021*	59.3	11.6	8.5	12.0	27.2	1.18

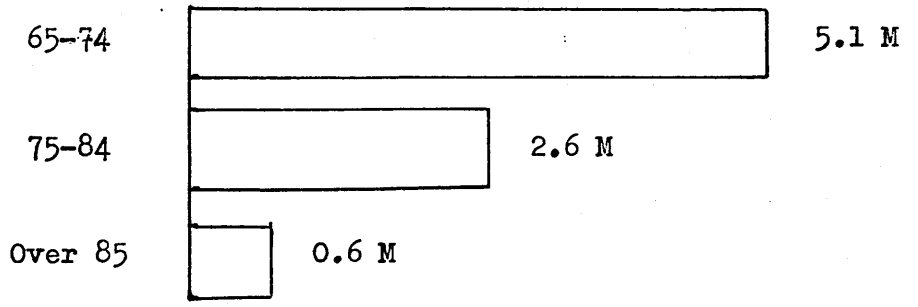
*Projected figures. Figures in millions

The figures, shown in table 63, can be explained by the increased number of pensioners being compensated for by the smaller number of children, and by more married women being employed on paid work. The percentage of children under 15 in the population has fallen from 32.5% in 1901 to 20.5% in 1981, close to the proportion that implies a stationary population. No correction of the working population figures has been made to allow for unemployment because the number of unemployed vary considerably within any decade. Applying an unemployment correction to each year in the table would distort the underlying demographic trend.

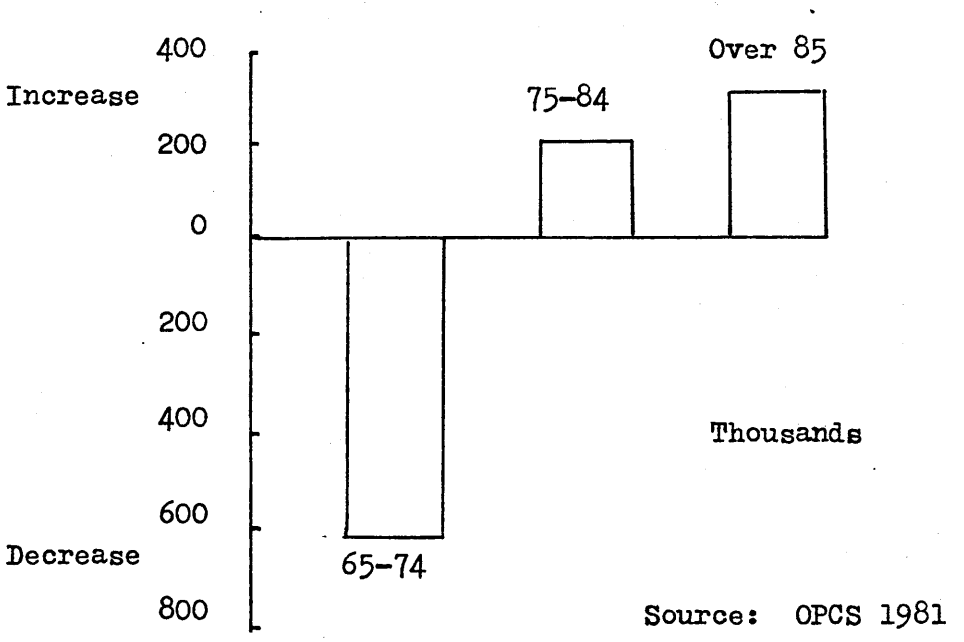
Not only has the number of elderly persons increased but the age composition has changed giving more very old pensioners, due again to reduced birthrates and better social conditions, as seen below.

Figure 3

UK population over age 65: 1981



Forecast change: 1981-2001



Source: OPCS 1981

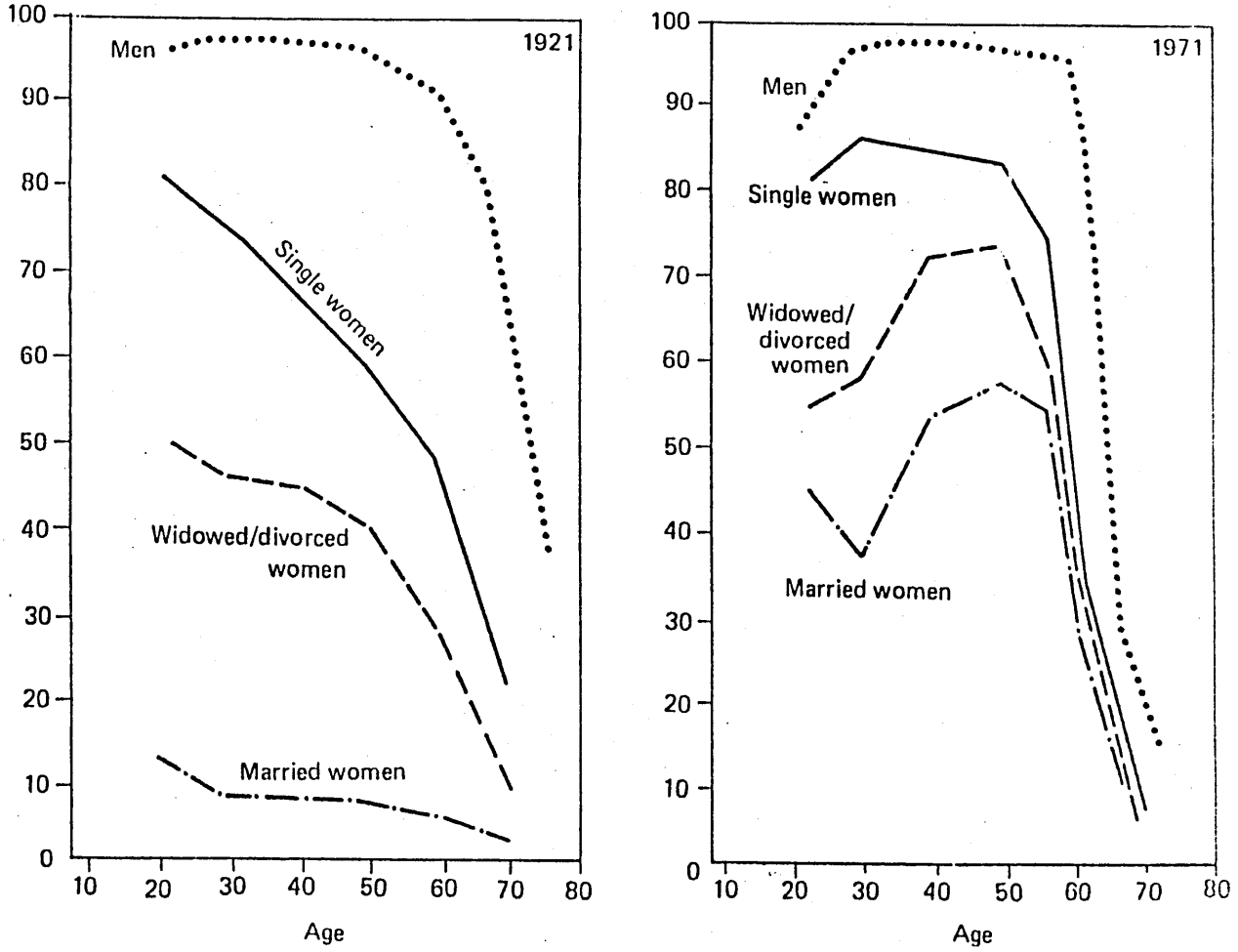
A review in the Economist (44) shows (Figure 3) that in the medium term, 1981 to 2001, the number of pensioners below 75 years of age will fall while the number above 75 will increase. This is another factor to consider when proposing changes to retirement ages and pension schemes. A theoretical analysis by J. Spengler (41) also shows that a general increase in the aged does not increase the burden of the working population because the percentage below working age is reduced while the percentage at work increases. He calculates that up to 1963 the number of persons above 60 have been negligibly affected by changes in the expectation of life at birth and the increased number of old people is almost entirely due to changes in fertility measured by the Gross Reproduction Rate. Only when the expectation of life reaches 80 and above does the mortality reduction become more important.

LABOUR FORCE ACTIVITY RATES

The changes in male and female percentage employment between 1921 and 1971 are clearly shown in figure 4. Overall the male profile has changed less but there has been a significant reduction of activity for those aged 65 to 69; the percentage in work falling from 80% in 1921 to 30% in 1971. For those of 70 and over participation has fallen from 41% to 11%

There has been a dramatic increase in female employment for all age groups but particularly for those below the normal retirement age. Besides four times as many married women remaining at work when initially married as previously, five times as many return to work after they have raised a family. There is a sharp drop in employment level after women reach normal retirement age. However, whereas one third of women retire then, about two thirds of men retire at their normal retirement age of 65. This is one argument for raising the pension age for women to 63 to offset the cost of lowering the pension age of men to 63; the majority of working women already choose to stay at work beyond 60. This preference for staying at work is supported by my survey results in table 50.

Figure 4: Economic Activity Rates (Percentage At Each Age).



Source: Census Of Population, 1921 & 1971

A combination of demographic and activity rate changes has lead to significant changes in the percentage of older persons in the working population as shown in table 64. Projections for 1981 and 1991 are based on the 1971 Census.

Table 64. Older Workers As A Percentage Of The Economically Active Population In Great Britain

	1921	1961	1971	1981	1991
Males 55 - 64	7.4	11.0	11.0	9.8	8.6
" 65 - 69	2.1	2.4	1.4	1.0	0.8
" 70 +	1.3		0.7	0.5	0.4
Females 55 - 64	1.7	3.9	5.3	5.2	4.6
" 65 +	0.8	0.8	1.1	0.9	0.9
Total	13.3	18.1	19.5	17.4	15.3

Source: DE Gazette, April 1978.

OCCUPATIONS OF OLDER WORKERS

S.R. Parker (35) drew attention to the concentration of older workers in particular industries and occupations. 55% of male workers over 65 years of age are to be found in Agriculture, Distribution, Professional and Scientific and Miscellaneous Services. Similarly 67% of women over 60 years of age are concentrated in the same industries excluding Agriculture. The percentages for all ages in these industries are only 29% and 47% for men and women respectively. Concentration of age groups by occupation is not so pronounced but there is an unusually high percentage of both male and female older workers in personal services, 15% and 43% compared to 3% and 23% for all ages. These industries and occupations are characterised by part-time work and self-employment. This suggests that older workers prefer not to work a full working week, as table 65 shows, and is consistent with the view that self-employed people choose to work beyond the normal retirement age. An additional factor is the tendency for workers to become self-employed as they get older probably when they have gained experience and become disillusioned with paid employment; this is supported by table 66. The desire to work beyond normal retirement age is discussed later (p117) but for the self-employed there is a greater opportunity and, in some cases, financial pressure to carry on working because many have not taken steps to supplement the State old age pension.

Table 65. Comparison Of Weekly Hours Worked By Older Men And Women And The Percentages Full And Part Time: 1977

Workers	Men		Women	
	55 - 64	65 - 73	50 - 59	60 - 73
Average weekly hours	42	25	27	22
Percentage full-time	96	28	45	23
Percentage part-time	4	72	55	77

Source: S. R. Parker, 1980 (35)

Table 66. Self-Employed As A Percentage Of Those In Employment By Sex And Age Groups: 1981

	Age 16-24	Age 25-34	Age 35-44	Age 45-54	Age 55-59	Age 60-64	Age 65 +
Males	5.2	13.1	17.1	15.4	12.7	14.6	28.5
Females	1.4	5.2	6.4	5.6	5.4	8.0	14.9

Source: Annual Abstract Of Statistics, 1984.

OLDER WORKERS AND REDUNDANCY

Withdrawal from the work force is frequently involuntary due to chronic illness or redundancy; both tend to increase with age. Table 67 shows the relationship between age and longstanding illness; there is little difference between the percentage for men and women.

Table 67. Percentage Handicapped Or With A Long-Standing Illness In Three Age Groups

Age	15 - 44	45 - 64	65 +
Percentage	14.5	28.8	47.6

Source: General Household Survey 1971.

Age as a factor in redundancy was only mentioned by 19% of employers contacted by the Office of Population Censuses and Surveys before the 1965 Redundancy Payments Act was passed. Until then there had been a general tendency for redundancies to be based on the principle of "last in, first out". After the Act age was mentioned as a factor by 38% of employers (45). Until the Act an employer's redundancy payment was proportional to the years of service of the employee, making it more expensive to make older workers redundant. After the Act the Government funded most of the additional cost of making redundant those aged over 40 years. Thus it now cost the employer little more to make an older worker redundant than a younger worker and many more older workers were removed from the workforce. Subsequent amendments to the Redundancy Act in 1969 and 1977 greatly reduced the age related subsidy. Nevertheless, the tendency to make older workers redundant in preference to the more youthful persists.

This impression is supported by a study by the British Institute of Management in 1974 (24) which concludes that age is now the most important factor in selection for redundancy. Analysis of a Department of Employment redundancy sample (table 68) covering 34,667 redundancies in 1976 confirms that age is a significant factor in the selection of workers for redundancy.

Table 68. Redundancies In The U.K. 1976

	25 - 34	35 - 44	45 - 54	55 - 64	Total
Percentage redundant	20.0	21.3	26.8	31.9	100.0
Percentage adjusted for the UK age profile	17.5	20.2	23.3	39.0	100.0

In general an employer feels less reluctance now to make an older worker redundant because he knows that redundancy payments together with the State Social Security System will reduce the hardship of job loss. There is also some consolation for employers in releasing older workers in that the livelihood of younger men with family responsibilities will be protected. Redundancy in anticipation of retirement has become an accepted measure during the recent period of high unemployment. Furthermore, employers' retirement policies tend to shed workers at the earliest economic opportunity which usually corresponds with the "normal" retirement ages as shown by P. Makeman and P. Morgan (47). This is clearly demonstrated in table 69 where only 34% (6.7 + 27.5) of men and 48% (13.5 + 9.4 + 24.7) of women are likely to have an opportunity to carry on working beyond the State Pension age.

Table 69. Employers' Retirement Policies

	Men	Women
Compulsory retirement 60 or below	0.6%	52.4%
" " 61 to 64	0.8%	0.0%
" " 65	64.4%	13.5%
Other retirement ages	6.7%	9.4%
No specific age for retirement	27.5%	24.7%

Of the men who believe they have to retire at a fixed age, 98% think it will be at 65. Similarly 76% of the women expect to

retire by 60 and 19% by 65. In contrast, Parker (55) finds that more believe they can remain at work beyond the normal retirement age, 43% for men and 52% for women.

Other factors influencing employers' preferences for the retention of younger workers are their better health, physical and mental ability, more recent training and greater adaptability to meet technological change. However, on the other side of the coin, lack of experience and greater non-sickness absenteeism of the younger worker needs to be taken into account. Evidence to support these commonly held beliefs is reviewed by P. Makeham (48). He concludes that there is considerable variance between people with regard to these factors but in general there is evidence to support the beliefs. His findings support the data given earlier in table 67 that chronic sickness and physical handicap increase with age. However, while there is greater certified sickness there is less uncertified sickness, voluntary absence and lateness for work as workers become older.

A survey by J.M. Smith for an Industrial Training Board in 1972 (52) finds that older workers are more reliable, motivated and quality conscious than younger workers during retraining but they are more rigid in attitude and require a longer training time. P. Makeham (48) concludes that ageing is not strictly chronological and men may be judged old on certain variables and youthful on others. Short term memory declines with age and the old can become confused in changing circumstances whilst remaining wise in respect of past experience. Verbal intelligence does not decline with age but the ability to handle numbers and spatial concepts does.

The relationship between adaptability and productivity is difficult to measure but surveys such as that by A. Heron and S.M. Chown (49) show that older workers are more traditional and rigid in attitude. Evidence from American (50) and Canadian (51) studies indicate that relative productivity declines after about the age of 55.

While there is still some reluctance to dismiss older workers there is greater reluctance to recruit them. The characteristics

of old established workers are known and they are already integrated into the workforce. Where there is some decline in performance they can often be slotted into lighter, less demanding jobs as shown by A. Heron and S. M. Chown (49). New, older workers are an unknown quantity offering less return on training than younger men, and with possible problems on the qualifying age for an occupational pension scheme and doubts as to their physical fitness. Jolly et al. in 1980 (45) find that the incidence of age-restricted vacancies is fairly widespread. A study of the job vacancies notified to the Manpower Services Commission shows that 28% have upper age limits and 94% of these specify 55 years. The age limit is not always strictly applied as 17% of those placed in jobs with age limits are, in fact, above the limit.

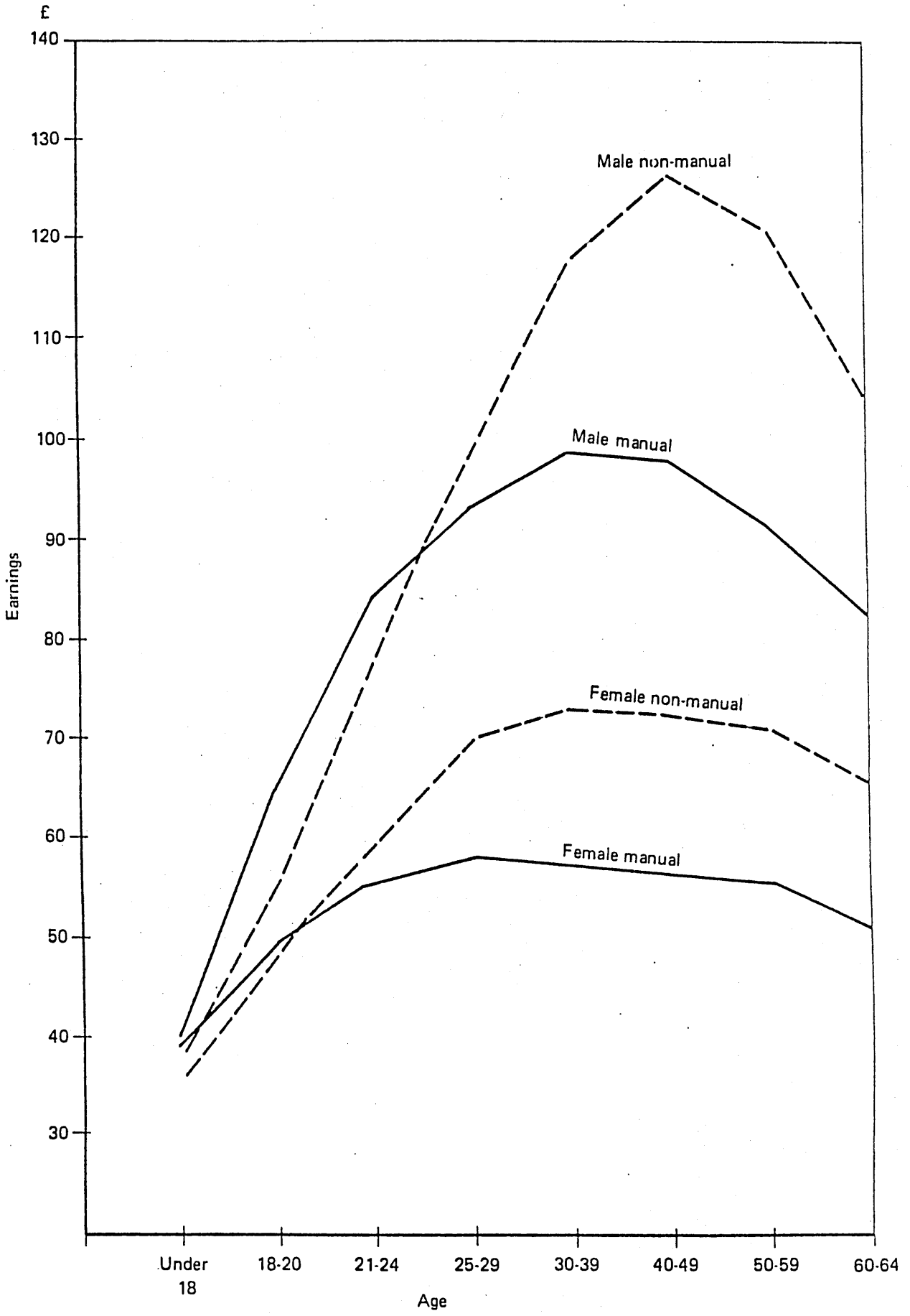
The practice of transferring some older workers to less skilled or lighter work is reflected in the lower average earnings of workers above 40. Another major contributory factor to their reduced income is the reduction in overtime working and shift working with age. This is associated with reduced family commitments with age and a greater desire for leisure. Figure 5 shows how male and female average earnings rise to a peak in mid-working life and then decline by about 15% for men and 10% for women. It follows that consideration of pension payments could be related to earnings in the years immediately preceding retirement rather than peak earnings because workers life styles would already have adjusted to the reduced income levels.

The difficulty for older workers to obtain new work after a period of unemployment frequently results in them taking a job requiring a lower level of responsibility or effort and subsequently lower pay. W.W. Daniel (53) shows this by looking at how pay changes between jobs for different age groups (table 70).

Table 70. Pay Difference On Changing Employment At Different Ages

	25 or below	26 - 35	36 - 45	46 - 55	55 +
Percentage change	+ 8%	0.0%	- 2%	- 2%	- 17%

Figure 5: Average Gross Weekly Earnings By Age: 1979



Source: New Earnings Survey 1979

Attitudes of the elderly unemployed also reduce their opportunities for employment. It may be necessary to move from an area of industrial decline to obtain a job. Older workers are more reluctant to move as shown by Harris and Clausen (54) in table 71 below. One may think that older workers are potentially more mobile because their children will no longer be at school but the children may now be at work and unwilling to uproot themselves; also pension rights will probably be reduced because of their lack of portability. Of course, expressing willingness is not the same as actually moving when it comes to the crunch. Many factors can affect "willingness": the views expressed by the spouse, the requirements of other members of the family, etc. The data in table 71 may apply no longer for at the time it was compiled jobs were plentiful and now they are scarce. It is probable that the percentage now willing to move will be higher.

Table 71. Attitudes Of Male Workers To Moving To Obtain Work (1953 to 1963)

	15-19 %	20-24 %	25-30 %	31-44 %	45-54 %	55-59 %	60 + %
Willing to move	41	41	40	39	40	38	24
Not willing	38	33	28	28	29	36	58
Uncertain	21	26	32	33	31	26	18

As one would expect, the number of unemployed workers who are prepared to retrain for a new job falls as retirement age is approached and when career expectations are lower, learning has become more difficult, and incentives are fewer. Table 72, from the 1974 survey by W. W. Daniel (53), highlights the sharp decline beyond 55 years of age. It may be that more workers are prepared to retrain than is evident from this survey. The data may reflect already that job opportunities may still be scarce, even after retraining, pay during training may be no better than unemployment benefit and craft unions may not accept workers who have not served a recognised apprenticeship.

Table 72. Percentage Of Workers Who Had Considered Retraining.

Age	Less than 25	25 - 35	36 - 45	46 - 55	55 +
Percentage	37	39	36	34	11

ATTITUDES TOWARDS DELAYED RETIREMENT

In 1977 about 15% of males and 32% of females above the normal retirement ages were still in paid work (35). S. R. Parker (55) focuses his attention on this group of workers; he shows that about two thirds of them continue in their main life job while the remainder have changed their job (table 73), i.e. 10% ($\frac{2}{3}$ x 15%) remain in main life job. Table 69 shows that 34% of workers can retain their jobs beyond 65 years of age but apparently only one third of them do (10% ÷ 34%). Assuming one third of those who have to retire at 65 also want to work, then 22% ($\frac{1}{3}$ x 66%) want to work but only 5% (15% - 10%) are successful or 1 in 4 approx; a roughly similar pattern applies to women.

Table 73. Whether Present Job Same As Main Life Work (As A Percentage)

		Under Pension Age		Over Pension Age	
	All	Full-Time	Part-Time	Full-Time	Part-Time
Women					
Yes	69	83	62	75	61
No	31	17	38	25	39
Men					
Yes	65	70		63	36
No	35	30		37	64

The survey actually shows that many of the 70%, who had to retire and who have not obtained another job; still want to work but have been unsuccessful in seeking employment. Of those who fail, 64% believe it is due to age and 26% believe it is due to their health. The percentage of those seeking work falls with age and it is concluded that many give up trying due to lack of success. From my own survey it is found that about 15% of males approaching 65 years of age wish to continue at work beyond the normal retirement year; this corresponds well with those found to do so above by Parker. About 52% of women approaching retirement age say that they would like to work beyond 60 which is greater than the 32% found to do so by Parker. The difference could be explained by a shortage of suitable jobs for elderly women. It should be noted that the percentage of women wanting to work beyond 60 provides

support for the argument that women are being retired unnecessarily early in comparison to men.

The desire to work beyond the normal retirement age is clearly shown by my Retirement Survey results on page 100. There is little difference between the sexes and about 46% of both are in favour of post retirement work. Few want full-time work, the majority preferring to work 26 or less hours per week spread over 2 or 3 days. Parker (55) finds that both men and women would like a working week of about 20 hours beyond the normal retirement age.

Parker discovered earlier (35) that the need for additional income is the main reason for wishing to work after retirement but liking work and wanting to avoid boredom are each mentioned by about a quarter of both men and women. A summary of the results is given in table 74.

Table 74. Reason For Working Beyond Pension Age.

	Percentage	
	Men	Women
Additional Income	42	40
Bored Otherwise	21	13
Companionship	7	14
Like The Work	17	21
Other Reasons And Not Answered	13	12

This compares reasonably with my own survey results on pages 98 and 101 where additional income or a higher standard of living is mentioned by 48% of respondents in employment and 31% of those who have retired. They differ in some other respects, for instance the need for companionship is put much higher at 20% and 19% respectively. The argument that boredom is a primary worry in retirement is not supported by my results at table 60 as only 6% of replies overall give this as a reason for wanting work. The higher incidence of boredom found by Parker confirms this as a common feature of retirement but my data suggests that it is not a major factor in encouraging people to return to work. People frequently consider themselves bored when they have nothing useful to do. Therefore,

it is possible that responders in the Parker survey have chosen the option "boredom" in the absence of a "desire to do something useful" option, as is included in my questionnaire. More motivating is the desire for a purpose in life given by 32% in my main survey and the need to do something useful given by 41% of the retired respondents.

While boredom may not directly result in pensioners taking up jobs it is a factor that reduces the pleasure of retirement. The British Medical Association in 1983 drew attention to boredom as one of the greatest enemies of a happy retirement; Dr Alan Carter (56) writes that the greater the boredom the sooner a retired person is likely to die and it is essential to develop new interests or expand existing ones. He advises anyone enjoying their job and in a reasonable state of health to delay retirement as long as possible. "Retirement often brings a sense of loss comparable with a bereavement" he continues. The first loss is of companionship which naturally leads on to the loss of being needed. This is accentuated by one's children being independent, leaving no-one who wants advice or help from the pensioner. This view is supported by Sir Desmond Pond, Chief Scientist to the DHSS. A medical consultant, K. C. Hutchin, quotes him (184) as saying that employment is important as it provides order in time, status and companionship. Pond regards work as one of the greatest analgesics, especially at a time of bereavement and illness, and the discipline of work can prevent mental breakdown. He is another who sees the need for a gradual change in lifestyle to comply with the ageing process - i.e. no abrupt change from work to retirement.

W. Loving (57) severely criticises those who write off Britain's eight million retired population as "pathetic old crones". The truth is, he says, that most retired people today are men and women in full command of all their senses but because they have reached a certain age they are shunted aside as not being quite full members of society. Many pensioners who do not return to paid employment find scope for their talents by doing voluntary work or joining self-help groups which brings companionship and a purpose to life. A well organised community work group is reported in the National press in 1982 (46). A Mr Neustedd formed a "Dads' Army"

task force of retired craftsmen to help other pensioners, widows and the disabled. About 40 men are in the team which does decorating, plumbing, carpet laying, carpentry, etc at roughly cost price. That there is no need for boredom in retirement is emphasised by P. Brown (58) who states that today's pensioners are better educated and more able to enjoy retirement than past generations. Looking ahead she reflects that it is up to us to ensure that what the elderly have today is good enough for us tomorrow. If the system worries us then we had better get it right before we became part of it.

In spite of worries about income, boredom, etc only a small percentage of people express concern about retirement according to Parker (55); table 75 shows that only about 12% of people are not happy about the prospect.

Table 75. Feelings About Retirement.

	Under Pension Age		Over Pension Age	
	Men	Women	Men	Women
Looking forward to it	46	26	28	27
Not happy about the prospect	9	11	15	13
Mixed feelings	40	52	46	53
Don't know	5	11	11	7

One can see also that fewer men above pension age are looking forward to retirement than those below it; this is to be expected for those above pension age are already able to retire. Why this does not apply similarly to women is not obvious but it may be explained by the poorer financial position in which many elderly women find themselves; pensions are frequently smaller owing to less qualifying years because of child rearing, and smaller salaries due to sexual discrimination. The higher percentage of men looking forward to retirement suggests that many will opt for early retirement if it is available.

ATTITUDES TOWARDS EARLY RETIREMENT

As P. Makeham (48) writes, attitudes towards retirement are likely to change considerably between generations as the educational background and the amount of leisure time available change. Increasing prosperity and longer lifetimes are other factors that can influence attitudes. Therefore the results of early surveys, such as that by the Ministry of Pensions in the mid-1950s may no longer be relevant. The first evidence put forward here is that of Shanas et al. in 1968 (59) which shows that poor health is the main cause of early retirement. Evidence from this source, and reproduced in table 76, gives several reasons for retirement.

Table 76. Reasons For Male Retirement Below 65 Years Of Age

	Denmark	Britain	U.S.A.
Poor health	76	56	65
Forced to retire	9	20	18
Could afford to retire	7	9	14
Other reasons	8	15	3

The 1977 O.P.C.S. Survey by Parker (35) gives a more recent picture of the reasons leading to retirement before the standard retirement age. It can be seen in table 77 that health still predominates and is more significant for men than women. Using these broad categories there is good agreement between both estimates.

Table 77. Reasons For Retirement In Britain 1977

	Men 45 to 64	Women 45 to 59
Poor health	50	39
Forced to retire	18	6
Could afford to retire	16	15
Other reasons	16	40

It is probable that health is a more frequent reason for men because they occupy the more strenuous jobs, many are disabled, and the working age range is 5 years longer. The high figure for women's other reasons may be due to them being the main wage earner less frequently, due to them retiring to match the husband, or due

to the need to look after sick close relatives, etc. The increase in men who can afford to retire earlier may be due to the provision of substantial redundancy payments and early retirement pensions by employers both backed to some degree by the Government, e.g. through the Job Release Scheme. Those having occupational pensions are also shown in the 1977 Survey, to be more likely to retire early. Although the number of workers in occupational schemes has changed little since the early 1960s there have been improvements in the pensions they provide. This is because more recent retirees have been able to acquire additional years service to their credit and pensions must be related to final salaries for all schemes that have contracted out from the State Additional Pension Scheme.

A voluntary early retirement survey was carried out by A. McGoldrick and C. L. Looper (60) in 1980 involving interviews with 120 early retirees and a National questionnaire survey of approximately 1500 responders. Those who had to retire because of ill health or under the Job Release Scheme were excluded; this resulted in health no longer being the primary reason given for early retirement as would have been expected from the earlier surveys. The reasons found for early retirement are given in table 78.

Table 78. Main Reasons Given For Early Retirement.

	Percentage of responders
1. Finances right	56
2. Worked long enough	47
3. Want more leisure	34
4. Health	29
5. More time to relax	28
6. Dissatisfied with job	25
7. Need more time for recreation	25
8. More time with family	22

Finance is obviously of extreme importance to those being interviewed; financial benefits and various retirement economies are often carefully weighed against present income. They are also well aware of the relatively short average life expectancy after retirement at the normal age and wish to increase their length of retirement by ending work early.

Satisfaction with early retirement is expressed by the majority of those interviewed including many of those compulsorily retired. Volunteers tend to find the decision to retire early an easy one when they have assessed the financial terms offered. This suggests that given financial security most people will accept if not actually choose to retire early. It is found that most of the early retired have maintained their standard of living at the same level or only slightly lower. They expect some reduction in their living standards in future years but consider the extra retired years is adequate compensation. Those without indexed occupational pension schemes are more apprehensive about the effect of inflation on their future lives. Without good pension arrangements the majority of those in the survey would not have chosen early retirement.

It is found in the survey that older retirees and manual workers are more prepared for the additional leisure of retirement than younger workers and those with greater social opportunities. For a few, early retirement has been a mistake and they become bored and depressed in having so much time on their hands. These are frequently those who have not planned for retirement, or have been compulsorily retired and resent giving up work. There is evidence that in time their adverse views of retirement change as the advantages of extra leisure are realised. One advantage, found by 66%, is a slight improvement in health, and less tiredness and tension. About 22% have noticed a slight decline in health but attribute this to the normal ageing process. Of course those with severe bad health or who are incapacitated are less satisfied with early retirement because opportunities to benefit from it are more limited. Many of the retirees miss certain aspects of work, particularly when newly retired, e.g. the responsibilities of job, the status of being a worker and, more commonly, loss of contact with friends and colleagues at work. These regrets are supported by the findings of my survey (p.101) where the two main reasons for missing work are wanting something useful to do (35%) and missing contact with people (22%).

The 1980 survey reveals that a small number of retirees want to work again but are unable to find something suitable; the causes

given are age, health, their specialisation, etc. Reasons given for seeking work include finance, boredom and conflict with wives. Some wives find it difficult to adjust to having their husbands "under their feet" all day after a lifetime of having the home to themselves for most of each week.

The McGoldrick and Cooper (60) research concludes that the majority are satisfied with early retirement and only a few are dissatisfied. They find that only about one third of eligible employees are usually interested in retiring early; numbers are lower where a scheme is permanently available. However, there is an overwhelming belief that individuals should determine their own retirement age in the light of their own circumstances; the 65 year retirement age for men is considered to be too high and should not be generally applied.

The findings above support those of S. R. Parker (35) based on the O.P.C.S. Survey of 1977. However, this survey includes those who have retired owing to bad health and this factor has been shown to be the most common reason given by both men and women for taking early retirement (see tables 76 and 77). He also finds that unskilled workers are over-represented among the early retired but only the mining industry is particularly associated with early retirements. The need for good health in a particularly demanding industry could explain the latter. The survey shows that although finance is of concern to early retirees, State provision - either sickness, invalidity, or supplementary benefits makes early retirement possible even for those without occupational pensions; in fact the average occupational pension is only about 20% of the average weekly wage and is received by just over a half of the early retired. The amount of savings a person has does not appear to be a significant factor in choosing to retire early because savings of workers and retired in the same age band are very similar. An examination of the influence of particular variables on the propensity to retire results in the conclusion that, after health, age is the most significant factor. Zabalza et al. (61) in 1979 used the O.P.C.S. survey to conclude that age has a very significant effect, independent of the pensionable age effect. It is of interest to compare this conclusion with my findings on pages

96 and 97 of the strong relationship between age and the desire to retire early. Zabalza also concludes that the older worker prefers leisure to income whereas I found no significant relationship (p.85) but the OPCS survey is for a different age range, men aged 55 to 72 and women aged 50 to 72, both working and retired.

FLEXIBLE RETIREMENT AND PART-TIME WORK

The Parker study also shows a small preference for retirement to be gradual rather than abrupt (see table 79); this view is well supported by my own findings (p.94).

Table 79. Preference For Abrupt Or Gradual Retirement.

	Workers Under Pension Age		Retired Under Pension Age	
	Male	Female	Male	Female
Abrupt	41	34	46	26
Gradual	56	62	51	65
Don't know	2	4	3	8

A preference for greater flexibility in retirement ages is shown in the Parker survey and is supported by McGoldrick and Cooper (p.124), Jacobson (62) in 1970 and by my own results. A greater number of men (79%) working beyond normal pension age say they would like to retire gradually.

The expressed desire for greater flexibility and part-time work in the Parker study contrasts with the sharp decline in male economic activity at 65. About one third of those expecting to have to retire at 65 wish to continue in their jobs. My own results give 15% for those males with an age related pension who wish to work beyond 65. (See p.117 also). A higher proportion of those in part-time work wish to continue in employment beyond 65 years of age. This supports the view that many older workers want to reduce their working hours but not to completely give up all paid work. It follows that there should be much greater opportunity for part-time work in industry. About two-thirds of full-time workers below pension age say that they wish to retire at a particular age, normally State pension age, while a third want to continue at work as long as their health allows (35). Most of the latter express a preference for part-time work all the year round; 20 hours per

week is a popular choice which would enable two part-time workers to cover one full-time job.

My own results from retired workers (p100) shows that 45% want a part-time job and that this would probably have been higher if part-time work had been more readily available; it appears that interest in returning to work falls with the length of retirement. The mostpopular choice for working after normal retirement is for two or three days per week. This would meet people's requirements for a purpose in life, companionship, respect from their jobs and a supplement to their incomes; all requirements that are revealed by my surveys. It is probable that the part-time work would provide sufficient extra leisure for those who give more leisure as the reason for wanting early retirement. The shorter week would also reduce the strain on their health. For these reasons I believe that 45% is a minimum estimate of those who would continue in part-time work after normal retirement age if it is made available to them immediately they "retire" from full-time employment.

One open-ended question (Q.30) included in my workers' survey asked for suggestions of how working times should or might be changed. Of the 252 who took the opportunity to comment, 55 mentioned retirement; 51 of these proposed early retirement, 14 specifying at 60 years and 10 suggesting 55 years or less. Two people, one a woman, said that men and women should retire at the same age intermediate between 60 and 65. Three of the male respondents said that retirement at 65 should be compulsory to give younger people an opportunity to obtain employment. Concern for the jobless young was frequently expressed by those proposing early retirement.

Retired respondents were similarly invited to comment on working hours and retirement in question 20. 52 respondents took the opportunity to comment and a selection of their views is given at Appendix 5. The need to plan early for retirement was mentioned by 9 respondents while 11 said it was important to develop interests and hobbies, and to keep active. Early retirement was proposed by 8 respondents, flexible retirement by 7, gradual retirement by 4 and more part-time jobs by 2. The few other comments applied mainly to changes to working life to reduce unemployment such as reducing

overtime and job sharing.

MANAGERS AND SHOP STEWARDS VIEWS ON EARLY RETIREMENT

In a survey for the Department of Employment by M. White (71) in 1979, findings from 400 manufacturing establishments in 5 industries were analysed to determine the effect of a reduction in working time on employment, wages, labour costs and output. The survey included interviews with managers in 68% of the companies and shop stewards in 38%. Many managers refused access to their shop stewards in case it stirred up trouble. Only a few of the shop stewards actually contacted refused to take part. Generally, those interviewed considered that early retirement does not have any effect on the numbers at each establishment, implying a high replacement rate (see p131). Varied views were put about the composition of the work force; there would be a loss of skill and knowledge but the work force would become younger and fitter and more ready to adopt new ideas.

The main concern of the managers and shop stewards is about the effect on pension schemes, surprisingly raised by only 15% of the former but 55% of the latter. They cannot generally estimate the cost of early retirement but 1% or 2% of the current labour costs is suggested. Government Actuary figures (70) state that for every year by which the retirement age is reduced, pension funding increases will be needed equivalent to a 0.8% increase in employers' wage costs. Thus for those retiring at 60 the increase will be 4% (0.8 x 5) of wage costs or 3.2% (0.8 x 4) of total labour costs. (Table C Appendix 6). This increase should be relatively easy to accommodate especially if spread over a year or two, in view of the OECD estimate of a 2¼% real economic growth for Britain up to the end of 1985. (121). The retirement age could be lowered initially to 63 and, then, continue with a reduction of 1 year per year until 60 years of age. At least 76% of women and 55% of men in my survey (p102)say they are willing to make a sacrifice to help the unemployed. Therefore, there are opportunities to negotiate that some improvement in living standards are foregone by workers to benefit the unemployed immediately, and themselves later when they want to retire, by making available a voluntary, lower retirement age.

The managers in the Policy Studies Institute survey by M. White (71) believe that they would not enforce retirement at a lower statutory pension age and many workers would not want to retire early. About two thirds of the shop stewards think that their members would want to leave work at the lower age. The limitation of the survey to manufacturing industry alone is a weakness of the sampling frame. Establishments in the Service area have been expanding rather than contracting and more women and part-time workers are employed; therefore responses there may be different. When asked which method of shorter working time they would prefer to see introduced in their firms the managers, representing the employers, and shop stewards replied as shown below.

Table 80. Acceptability Of Various Working Time Reductions

	Less hours per week %	Longer Holidays %	Early Retirement %
Managers	14	10	76
Shop Stewards	50	26	24

It is interesting to note that in table 80, where the managers are making a choice on behalf of their employers, that they prefer early retirement to other forms of reducing working hours. On the other hand in table 29, where managers give a personal preference, longer holidays are preferred. Table 80 shows that half the shop stewards prefer a reduction in weekly working hours while in table 24 my results show that workers' preference is for longer holidays. One would expect the shop stewards to represent the views of the workers but the apparent lack of agreement between them could be due to the different sampling regions used. On the other hand the shop stewards may have been influenced more by trade union policy than by union members' views. Attention is drawn to the support for my survey results in a 1975 survey of 65 Trades Unions (7) by the National Board for Prices and Incomes. There was no question on early retirement but there was a 2 to 1 majority in favour of extra holidays rather than shorter working days. It follows from the different preferences of employers and workers that a compromise must be made between their requirements in order to select an option that is acceptable to both worker and employer. Employers

appear to completely reject shorter hours per week and longer holidays; as their strongly favoured (76%) first choice of early retirement is also the second choice of the employees in my survey, this provides the compromise with the greatest overall support.

Zabalza and Piachaud (72) produced a model to assess the effect of various policy changes on the number of retired. The greatest effect was by introducing flexible retirement for males between 60 and 64. Raising the retirement pension and abolishing the earnings rule had a negligible effect.

JOB RELEASE SCHEME (JRS)

The UK Government's attitude to early retirement for men has been inconsistent in that it introduced the JRS in January 1977 as a temporary measure allowing workers to retire one year earlier at 64 for men and 59 years for women. The age for men was reduced to 62 years in May 1979 but, by April 1984 it was back to 64 years again. Thus, at a time of peak unemployment the Government reduced the contribution JRS was making to the unemployment problem. The scheme has been more consistent towards women and disabled men who can apply for Job Release at 59 and 60 respectively.

Employers who agree to workers leaving their employment under the Job Release Scheme undertake to recruit a replacement from the unemployment register. The replacement need not be for a specific job vacated as long as any chain of moves results in a job for someone who is unemployed. The link between the vacated post and the job filled must be demonstrable. The allowances paid to successful applicants by the State in 1981 were £40 for single persons and £50.50 for couples. This is a little more than the retirement pension for couples(£47.35) and considerably more than the retirement pension for a single person (£29.60). However, participants in the scheme are only allowed to earn a maximum of £4 per week to prevent them taking work away from the unemployed. This is considerably less than the amount a pensioner can earn before his pension is reduced by taxation under the "earnings rule". The scheme has not had a big impact on unemployment as only 57K left work under the scheme by January 1982 (68) and this has only

risen to 80K by March 1983 (79).

Two analyses of the JRS by P. Makenham and P. Morgan (47) in 1980 and J.A.S. Robertson (63) in 1982 conclude that the scheme has a beneficial effect on unemployment and attitudes towards JRS by employees and employers are generally favourable. The first analysis is based on a survey totalling about 8000 people and, independently, 140 employers, while the second analysis covers 485 employers. Makenham and Morgan find that applicants are predominantly (73%) male which is only partially explained by the larger number of male workers. The vast majority of applicants are manual workers, particularly from semi-skilled and unskilled jobs (table 81), and they are a greater percentage of the applicants than one expects from their fraction in the total work force eligible to apply for Job Release. This may be due in part to the tendency of older workers to move down the skill ladder referred to earlier (p114).

Table 81. Occupation Of JRS Applicants And Eligible Age Groups

		Applicants %	Those eligible %
Male	Professional and Managerial	4	11
	Other Non-Manual	18	21
	Skilled Manual	28	33
	Semi and un-skilled manual	50	35
Female	Professional and Managerial	2	6
	Other non-manual	29	39
	Skilled manual	13	18
	Semi and un-skilled manual	56	36

It is clear that non-financial benefits of the Job Release Scheme are more important considerations than financial factors because most applicants suffer a reduction in weekly income. About 50% of those asked say that the allowance is inadequate but about 10% say that they are better off than when working. The most important reason, 36%, for applying under the JRS is the applicant's own poor health, 26% quote problems associated with work and 20% express a desire for more leisure. Correlation is found between decreasing social class of their jobs and increasing early retirement due to poor health. In contrast Makenham and Morgan find an

increased desire for leisure is correlated with an increase in the social status of applicants jobs as I found from my survey (p82).

Robertson (63) finds that of replacements for those leaving employment under the JRS, 40% are aged under 25, 53% are 26 to 54 and 7% are over 55. 45% of replacements go directly into the vacancy left by the JRS applicant while the remaining 55% goes into a vacancy caused by consequential organisational changes. Table 82 shows that fewer of the JRS vacancies are filled directly by young people. This is to be expected as those retiring are at the end of their careers and usually hold more responsible jobs. However, this factor, as I pointed out earlier, (p114)needs to be balanced a little against the fact that older workers (mainly manual) may have transferred to less remunerative work.

Table 82. Method Of Replacement Of Jobs From The JRS By Age

	Under 18	18-25	26-54	55 +	Total
Method	%	%	%	%	%
Direct	37	41	65	72	55
Indirect	63	59	35	28	45

According to Robertson (63), just over one half of employers consider the scheme advantageous; of these 62% say that it enables them to replace old staff with young. The two other reasons why they consider their organisation benefits is that they can replace sick staff (18%) and re-organisation is possible (16%)

Table 83. JRS Replacement Rates By Occupational Classes (As A Percentage Of The Overall Replacement Rate)

	Professional & Managers	Other Non-Manual	Skilled Manual	Semi Skilled Manual	Unskilled Manual
Direct	23	94	90	135	155
Indirect	124	97	124	86	55
Overall rate	72	93	107	112	107

The replacement rate for occupational classes mirrors that for age in that direct replacements of more senior posts are few while for unskilled they are many. Presumably the higher posts are filled by internal promotions but replacement of these posts overall is 28% less than average suggesting a down grading of the average job within the organisation or organisational rationalisation.

The Department Of Employment estimate that the success rate of the scheme is about 85%. Some leaving on JRS are not replaced and others replaced only temporarily. In other cases JRS is used to avoid redundancies thus, although no-one is removed from the register of the unemployed, the scheme prevents additions to it. Replacement rates vary with the organisational type as shown in table 84.

Table 84. JRS Replacement Rates By Organisational Type (As A Percentage Of The Overall Replacement Rate)

	Limited Company	Public Corpn/ Nationalised Industry	Local/Central Government	Other
Direct	113	81	94	100
Indirect	107	155	83	79
Overall rate	110	117	87	90

U.K. GOVERNMENT AND EARLY RETIREMENT

Government ambivalence towards early retirement referred to above (p129)is supported by the application of JRS to their own employees in the Civil Service. Opportunities for Civil Servants are reduced by restrictions imposed by the recruitment methods operated. John Ellis, General Secretary of the Civil and Public Services Association complains (65) of the constraints imposed on his members applying for JRS; my own observations within the Civil Service support his views. Central and Local Government also have the poorest replacement rate under JRS (table 84).

In 1982 a DHSS paper (66) suggests how current pension arrangements can be changed and estimates are given of the likely costs. A common retirement age of 63 for men and women is one proposal with the possibility of retirement at 60 on 76% of the normal pension

or working beyond 63 on a higher pension. The big advantage of the scheme is that individuals will obtain a degree of freedom of choice in retirement age at an average extra cost of 30p / week in National Insurance Contributions. An all-party Social Services Committee support the proposals and has put them to the Government. These proposals received a cool reception by the Government (67), and also by the TUC (13) who reaffirmed their commitment for everyone to get a State Pension at 60. The DHSS recommendations have been considered by the Ministerial Inquiry into State Pensions set up by Mr N. Fowler, Health & Social Services Secretary. The Ministry has not rejected the recommendations but attention has been drawn to the costs of over £500m to Public Funds and increases to occupational Pension Schemes; the costs rising as the year 2000 is approached due to the higher pensions which will then be payable. One snag is that a common retirement age of 63 will worsen conditions for women in that they now receive the State Pension when 60 years of age. My estimates of the cost to public funds of early retirement for all at 60 are given on page 134.

Besides investigating problems of funding pensions up to and beyond the year 2000, Mr Fowler's inquiry into State and Occupational Pensions has carried out a major investigation into the "portability" of occupational pensions. At present a person who stays with one Company for many years before retirement has a great advantage over those who change jobs several times. Transfer of pension rights from one fund to another, where allowed, is often done at a loss to the transferer. In many cases transfer is not possible and pension rights are frozen with the fund until retirement age. Thus, due to inflation, the value of this investment decreases with each year that passes. Also, pensions are normally related to a person's salary towards the end of his career while the frozen pension will be proportional to the salary he has now in his old job, which will usually be lower for younger workers. If all pensions become portable without loss of value, then loss of pension value will not be a factor to discourage workers from changing their jobs. Such freedom of movement will also be of advantage to the economic vitality of the nation, if not to each Company. Mr Fowler now proposes legislation to give people the right to be responsible for their own pension arrangements i.e. they can personally contract

out of the State earnings related scheme (175). A DHSS document on the subject (177) suggests that employers will deduct employees' personal pension contributions from their wages and pay them, with their own contribution, into a personal pension plan of the employee's choice. Mr Fowler is also proposing that employers must top up contributions that are frozen in an occupational pension fund when a worker changes his job; the contributions are to be enhanced in line with inflation up to a limit of 5% per annum (176).

While Britain has just begun a review of retirement and pension schemes, changes have been introduced in other countries since the notes on p 38 were written. For instance, from April 1983 retirement at 60 in France can result in a working man's pension reaching 70% of average wage levels (73). In Germany employers are subsidised by the State when they retire workers at 58 years of age; employers give a pension of 65% of a worker's normal salary and the State pays 35% of this cost (74). However, in contrast, Japanese workers who already obtain State Pensions from 60 are often forcibly retired at 55 or even 50 on low pensions. There are moves to avoid such early retirement and in America they have won a statutory right to keep working until the age of 70 if they so choose, to avoid the cut in income and status that retirement normally brings (75). It follows that there are good grounds for Mr Fowler's Inquiry to consider full flexibility of retirement from 60 or even 55, up to, say, 70 such that it meets the needs of the public at an acceptable overall cost. The Equal Opportunities Commission has again called on the Government to introduce a common retirement age for men and women (178). In its evidence to Mr Fowler's Inquiry the Commission refers to a survey it initiated showing overwhelming support for the idea, and willingness to pay more for better pensions.

FINANCIAL IMPLICATIONS OF ALLOWING RETIREMENT AT 60 FOR MEN

There were 1.342M males aged 60 to 64 in the UK in 1981 (76). Of these 115K were single, 1220K were married, 72K were widowed and 35K divorced. Should all this age group have retired with the standard State pension the cost would have been about £3.1B per annum. This is typical of costs that have discouraged past Governments from seriously entertaining such measures. The present estimate is based on the standard weekly pension of £29.6 for

single persons and equivalent, and £47.35 for married couples, provided by the State in 1981. However, in 1981 only 74.6% of this age group were economically active because 25.4% were already retired or permanently sick on invalidity benefit. As the invalidity pension was the same as the retirement pension in 1981 the additional cost of early retirement would have been reduced to £2.31B (0.746 x £3.1B) for 1.00M males (0.746 x 1.342M). About 9.4% of the age group were self-employed and this would have lowered, by a few per cent, the numbers and cost of early retirement because the self-employed have a tendency to work beyond 65 (table 66). In theory, the retirement of 1.00M workers would have removed the same number off the unemployment register at a saving in unemployment pay of £1.59B per annum. In 1981 2.395M unemployed received £3.808B in benefits giving an average annual cost per person of £1590 (see table A, Appendix 6). This assumed that all persons on the register were equally likely of getting a job. Thus the net cost to the State of providing this number of jobs for the unemployed would have been £2.31B for pensions, minus £1.59B from the unemployment saving i.e. £720M.

It is assumed in the calculation that the pay of the work force remains unchanged and the tax paid by the new workers equals that paid previously by those who have retired. In practise I believe the average pay of the new workers will be a little less than those they replace owing to the lower age range and possible organisational rationalisation (see p.131). This, together with the higher probability of younger workers having greater tax allowances, may result in a small reduction in Government tax revenue. A counterbalancing factor is that the same higher commitments of young married workers with families will probably mean that they are drawing more supplementary benefits than their older counterparts. Overall the net effect is expected to be fairly small.

Further factors that could distort the above calculation of the cost of early retirement for men at 60 are the replacement rate of those retiring and their death. Managers in the survey by M. White (71) in 1980 think that about 88% of early retirers will be replaced; this is more than the two thirds quoted in a Department of Employment estimate in 1978 (25). A possible explanation for the increase over the 3 years is that industry has become more

efficient as surplus workers have been shed leading to a doubling of the unemployment figure. It is therefore more likely now, after further unemployment, that well over 90% of early retirers will be replaced because there is less scope for further reduction in staff numbers and the economy may be just on the upturn. The actual cost to the Government will be reduced further due to the death of early retirers before they reach 65. From Government Actuary Life Tables (76), 11.5% of 60 year old males will die before they become 65; the difference between unemployment benefit and State pension will no longer apply to these people.

It is obviously not possible to accurately quantify all these small imponderables of new salaries, tax allowances, and death but a reduction in numbers of 10% for lower replacement has been allowed bringing the number off the unemployment register to 900K. This increases the costs by £159 M (100K x £1590) for the 100K still unemployed bringing the cost to £879M (£720M + £159M). Both figures are likely to be much smaller, unless retirement at 60 is made compulsory, because of a take-up rate below 100%.

My survey indicates that 70% of male workers aged 55 and above will choose to retire before 65 years of age on a fixed pension and this will fall to 64% if the pension is age related. Zabalza and Piachaud (72) predict that 65.8% of workers between 60 and 64 years of age will retire early if retirement is allowed from 60; this is based on 1977 OPCS Survey data (35). Although the respondents in my survey may not be nationally representative, the 67% mean agrees very well with the Zabalza prediction of 1981. Applying this percentage uptake of early retirement to the number of potential early retirers I previously calculated, 900K, brings the more likely total to 600K at a cost of £589M (0.67 x £879M) to the State. Even using the Zabalza take-up rate the number of early retirers would only drop by 10K which is less than the accuracy of my estimate.

D. Metcalf (68) quotes a Department of Employment calculation in 1977 that 600K would be removed from the unemployment register at a cost of £1,000M if retirement for all is allowed from 60 (see p.37). Although there is excellent agreement between the estimate that was quoted by Metcalf and my own, a simple comparison of the two results

is not possible because many variables changed between 1977 and 1981, e.g. the number of males aged 60 to 64 fell while the replacement rate increased. However, there are large differences in cost and I suggest that the 1977 estimate by the Department of Employment is rather pessimistic. My figures of the cost to the State would have been higher if full allowance had not been made for the savings from removal of people off the dole. Ignoring this saving is not appropriate because there are no signs of, or Government forecasts, of unemployment falling significantly from the current figure of about 3.2M during the present decade. Therefore, one cannot legitimately estimate the cost to the Government of the extra pensions in isolation; the savings from the removal of people from the unemployment register should be included in any calculation. **In periods where** unemployment is expected to remain at a high level the introduction of early retirement will only change the young unemployed into old "unemployed".

Assuming that my estimated cost of £589M for early retirement is of the right order of magnitude this is only about 0.5% of the £106B total Public Expenditure in 1981/82 (173). This percentage will have changed little since 1981/82 because individual retirement and unemployment benefits generally keep in line with total expenditure over periods of a few years. This being the case the cost of early retirement now should be covered easily by the present growth rate of 3% per annum in 1984 (78) because Government revenue is expected to rise by approximately the same percentage. Further consideration of retirement policy is given on pages 203 to 209.

Chapter 5

Reduced working hours and an increased holiday entitlement

INTRODUCTION

The length of holidays has not attracted as much attention in the media as the length of the working week but the rate of growth of holidays has been by far the larger. From a 1 week holiday before World War 2 the average holiday allowance now exceeds 4 weeks excluding Public holidays. (table 85). By the end of 1982, 93% of manual workers had a minimum entitlement of 4 weeks or more and nearly 19% had a minimum of 5 weeks or more. Over the same period the percentage of workers eligible for additional holidays from their length of service rose from about 4% to about 40%. Thus the growth in actual holidays has increased at an even greater rate than that shown in the table.

Table 85. Basic Holidays With Pay For Manual Workers 1951 - 1982 (Percentage Of Workers)

Year	1 week	2 weeks	2-3 weeks	3 weeks	3-4 weeks	Over 4 weeks	Average
1951	31	66	2	1	0	0	1.7
1960	0	97	1	2	0	0	2.0
1965	0	75	22	3	0	0	2.2
1970	0	41	7	49	3	0	2.6
1972	0	8	16	39	33	4	3.1
1975	0	1	1	17	51	30	3.7
1980	0	0	0	2	24	74	4.2
1982	0	0	0	2	5	93	4.4

Sources: British Labour Statistics Yearbook 1980
And Employment Gazette April 1983.

The PSI Study by White (71), introduced on page 127 concludes that the increase in holidays cannot be shown to have had an effect on manpower employed on overtime. If anything, establishments with longer holidays work less overtime. It appears that these establishments are more likely to introduce measures to improve labour utilisation and deployment. They are also less likely to have complete shutdown periods but have instead, holidays spread over a long period. Firms appear to be more ready to allow holiday increases than to reduce weekly hours although no obvious reason is apparent; this cannot be reconciled with the survey result in

table 80 where managers, speaking for their employers, show less willingness to give longer holidays than other increases in leisure. The desire of workers for longer holidays is shown by the fact that negotiations for improved holidays are as likely in long holiday firms as in others.

My Reading survey demonstrates the desire for more holidays by workers as well as their preference for leisure to money (ps 80 & 84). This strong desire for holidays is found by the Economist Intelligence Unit (81), who report that Britons prefer two weeks holiday in the sun to buying a new washing machine; the Unit find that they spend more of their incomes on leisure than people in most Western countries.

It is shown earlier (p24) that the number of days holiday available to workers in the United Kingdom is less than in many other European countries. As seen in table 85 improvements in holiday entitlements have been acquired in recent years but there remains an adverse differential of over 2 days per year with respect to Western Bloc countries in Europe (table 86); this is due, of course, to holiday increases also being negotiated in those countries. Even though the United Kingdom annual holiday now averages about $4\frac{1}{2}$ weeks the total holidays is still just short of the average for Western Europe; furthermore table 86 does not reflect more recent increases that may have been granted in the other countries.

While giving evidence to a House of Lords Select Committee, Mr Robbins (82), ICI European Personnel Director, said that German workers prefer additional holidays to shorter hours even though they already have a standard holiday allowance of 6 weeks. Dutch Unions are also pressing for longer holidays, rather than shorter days, as an alternative to wage increases in an attempt to reduce unemployment. Both of these statements should be compared with the finding of the EEC Survey in 1977 (table 31) on leisure preferences in other countries. Mr Robbins adds that there is a tendency in Europe to increase shift work which can have economic advantages due to greater capital utilisation.

Table 86. Holidays in European Countries 1982

Country	Public Holidays Days	Annual Holidays Weeks	Total Assuming 1 week = 5 days
Austria	13	4	33
Belgium	10	4	30
Denmark	10	5	35
France	10	5	35
W. Germany	11-13	5-6	40
Greece	6	4	26
Italy	10 *	6 *	40
Luxembourg	10	5	35
Netherlands	8	4-4½	29
Norway	10	4-5	33
Portugal	12-14	3-6	36
Spain	14	6	50
Sweden	11	5	36
Switzerland	4-5	3-4	22
United Kingdom	8	4	28

Source: I.L.O. 1982.

* The figures for Italy are supplied by the Italian Institute for Cultural Studies, London, whom I consulted in 1984 about the fall in public holidays between 1976 (table 2) and 1982. They explained that the total number of holidays has not changed but some of the religious public holidays have been exchanged for increased annual holidays.

One can argue that because Britain still lags a little behind Europe in the total number of paid holidays granted to workers, it would not be unreasonable for the TUC to press for improvements. This would probably be more popular with workers than the campaign for a 35 hour week. However, as is discussed earlier (p.39) the potential for providing jobs for the unemployed by increasing annual holidays is very limited. This view is supported by the Anglo-German Study (79) which concludes that shorter hours per day would contribute more to reducing unemployment. The UK Trade Unions Research Unit section of this study include the finding that male workers prefer a reduction in working hours as whole blocks of usable time - like a full day or a series of days off whereas

women prefer to finish work earlier each day. While my survey finds a small tendency for women to want to finish work earlier than men they also have a stronger preference for holidays (table 24). 85% of women and 65% of men give an extra 2 weeks holiday as their first choice of extra leisure. Although the percentages are less for two further offers of additional leisure those choosing extra holidays remain higher than those choosing shorter days or early retirement, and more women choose holidays than do men on each occasion.

THE EFFECT OF REDUCED HOURS PER WEEK ON PRODUCTIVITY AND EMPLOYMENT

The White Study (71) includes a question for company managers as to what effect there would be from a reduction in the working week of 2 hours, an increase in annual holiday of two working weeks and retirement 2 years earlier, all equivalent to about a 4 or 5% reduction in total working time. The effect of earlier retirement is described on page 127.More workers would be required for the shorter working week according to 25% of managers, 15% of managers expect lower output and 40% expect an increase in overtime. As they all expect weekly wage rates to be maintained, costs would increase. 20% of the managers think the cost effect would be small due to opportunities to improve efficiency but 11% think the opposite. Only a small part of the hours lost per firm are expected to be converted into jobs for new workers and a cost increase of 4% is predicted. Shop stewards express similar views but they are more optimistic about job creation and cost increases.

In response to the question on holidays 30% of managers think the effect would be severe but 5% think the change could be easily absorbed. 35% refer to increased manning to cover holidays, 15% by temporary workers. The average increase in workers is estimated as 3.5% for manual workers and 1.5% for non-manual workers with costs up 5%. Few think overtime working can compensate for the loss of working hours. Continuous operating plant is thought to be most susceptible to increased holidays and 25% refer to problems of continuity of production. The timing of holidays is considered to be of importance; avoidance of peak periods is preferred. Shop Stewards are again of a similar view but more optimistic.

The White survey of 1979 suggests that many of the working hours given up by introducing a shorter working week would not lead to new jobs. This view is supported by a series of case studies he carried out a little later (83) on selected manufacturing and service organisations. Managers were asked to report on how a reduction in working hours each week had affected the operation and costs of their companies. In only one case can increased recruitment be definitely connected with the reduction in working hours; this is at a consumer products company where to increase output two shift working has been introduced. Generally production is maintained by off-setting measures such as increased pace of work, restructured organisation, meal-break reduction and the introduction of flexible working hours. It is difficult to establish a link between shorter hours and overtime working. In fact, in a pharmaceutical company, overtime fell by 10% and production increased when fewer hours per week were worked. Managers argue that the effect of reduced hours cannot be estimated when so many other factors are changing simultaneously; for this reason the cost of working fewer hours per week cannot be assessed with accuracy. About 1 in 7 managers believe that the wage increases negotiated in 1981 are less because the working hours have been reduced. Union representatives think that management has gained most by the new measures but concede that the cost to workers is outweighed by the benefit of reduced hours. Over 80% of managers are satisfied with the co-operation of Unions over productivity agreements to off-set shorter working time.

An Employment Gazette assessment (84) of PSI Studies between 1979 and 1983 also concludes that reduced hours do not lead to the creation of many more jobs because increased productivity maintains production. In fact, 56% of engineering firms and 78% of printing firms have reduced manpower as well as hours per man. Of course, economic factors due to the recession could have had an influence. Although total hours worked dropped by 4% in 1981/82, overtime has increased on average by 26% in spite of management and Unions intention of restricting it. This may explain why about 44% of the firms interviewed think that shorter hours have increased costs; premium payments have been necessary for overtime working. It seems to the Gazette authors that the increased overtime is more

likely to be due to cuts in the labour force occurring at the same time as a cut in basic hours.

PA International Consultants obtained managers' estimates of the cost of reduced working time in a series of case studies for the Anglo-German foundation (79). An immediate 10 per cent working time cut is considered preferable to smaller cuts each year for a few years. The sudden cut is expected to stimulate management and unions into achieving higher productivity but this would do nothing to reduce unemployment. On average, employers reckon they can achieve a 7% increase in productivity in the process of cutting hours by 10%, say from 39 to 35 hours. The PA Consultants estimate that extra employment over all 30 firms studied would be about 3% which, with the 7% productivity increase, would maintain production at the previous level.

Assuming that their estimation is correct and that it could be achieved Nationally, the 3% increase applied to the 22M in work during 1978 would have resulted in 660K jobs. This is considerably more than the 100K to 500K predicted by the Department of Employment in 1978 (29) and is closer to the estimate of 750K given by J. D. Hughes (165); both these estimates are referred to also on p.42. Leslie and Wise (85) examined the arguments of two contradictory groups, the TUC and the Economists. The TUC believe that the productivity of overtime is low and therefore wasteful while the Economists believe that there is wastage in basic hours due to setting up machines etc, and the hoarding of work in anticipation of overtime. The authors use production functions allowing for technical progress in each industry and conclude from their analysis that the TUC is probably nearer the truth. In contrast J.J.Hughes (86) warns that a fall in hours may not be made up by increased productivity or increased employment thereby lowering production and, in turn, earnings and consumption. He fears that Britain will lose competivity in international trade by reducing working hours more quickly than her competitors. A. Allen (87) is also concerned about 2nd order effects such as the effect of reduced hours on international trade competitiveness. He estimates that both the TUC and Department of Employment calculations would have been more pessimistic if they had taken 2nd order effects into consideration.

He considers 3 scenarios: (a) For a 5% cut in hours and wages he expects unemployment to be reduced by 260 K which is only about 20% of the potential for this magnitude reduction in hours. In cases (b) and (c) hourly pay is increased to maintain earnings; in both cases there is an initial fall in unemployment as in (a) but after 4 years of adverse trade this number has either reduced to 110 K or gone completely, possibly leaving more unemployed than before. Richard Allen concedes that if a similar working hour reduction is carried out by our competitors then the unemployment reduction would be permanent but the price of goods would go up.

In his 1982 Paper (68), Metcalfe quotes a Treasury estimate that one third of the advantage of a unilateral reduction in working hours would be lost within 2 years. However, he writes that with the current 2½% per annum rise in productivity (121), one hour could be cut off the working week each year at constant salaries, i.e. income growth from improved productivity could be foregone in exchange for more leisure for workers and lower unemployment.

Table 87. Average Weekly Working Hours In Various Countries 1971 and 1982

Weekly Hours	Japan	W.Germany	Holland	U.K.	France	U.S.A.	Italy	Belgium
1971	42½	43	44	41½	44½	39½	38½	40
1982	41½	41	41	40½	38½	38½	38	34
Reduction	1	2	3	1	6	1	½	6

Source: Economist 7.5.83.

Fears of loss of competivity may be unfounded for cuts in working hours have been greater with our competitors as can be seen in table 87 and page 140. The Governments of France, Holland, Belgium and Italy have all put together schemes, usually with fiscal incentives, to encourage reduction in working time. The EEC Commission has also proposed that reduced working time be encouraged. Work sharing to reduce unemployment and improve the quality of life of workers is generally being debated throughout EEC and OECD countries who are our major competitors. For instance, in West Germany in 1982 (88), both the Chancellor and the Economics

Minister subscribed to the view that there must be an end to rising standards of living for there to be a meaningful fall in unemployment. German Trade Unions have been willing to accept pay increases below the level of inflation and are now demanding a 35 hour week (89). The largest German Trade Union, IG Metall has organised strikes in support of this demand (90) but employers are strongly resisting the move because they claim their main competitors are not in the EEC but are in the USA and Japan. However, this argument will go if reduced hours are introduced throughout the OECD of which the USA and Japan are members.

THE EFFECT OF INCREASED HOLIDAYS ON PRODUCTIVITY AND EMPLOYMENT

In the last few paragraphs a case has been made that shorter working hours in Britain need not necessarily affect our foreign trading ability. Our major competitors also have severe unemployment problems and they could introduce similar measure to reduce working hours. The working time reductions generally considered abroad and by the Department of Employment and TUC, are in hours per week. However, the alternative of making the reduction by way of holidays instead of shorter working days is equally relevant. The 10% reduction in working hours the TUC has campaigned for could be given as a holiday of 4½ weeks in addition to the current 4½ weeks average (p 141) With this larger allocation it may be possible to require that some of it is taken in less popular times of the year to increase opportunities for the creation of jobs for the unemployed. In which case it would not be unreasonable for the earlier estimate of 3% (p 144) more employment from a 10% reduction in working hours to apply to extra holidays as well as to fewer hours per day. Using an estimate of 3% is probably cautious because it would need an 11.1% increase in jobs to make up for a decrease in hours of 10%. Four Department of Employment estimates of job creation (29) were mentioned earlier (p 42) Each estimate indicated various ways in which production could be maintained after a cut in working hours to 35 per week. An average of the estimates gives about 30% of the lost production from increased employment, about 30% from increased overtime and the remainder from increased productivity per man. Applying 30% to the 11.1% requirement for new jobs gives an actual required increase of 3.4%, hence my belief that the 3% derived by the Anglo-German Foundation (p 144) is not an

unduly optimistic estimate.

In June 1981 there were about 24.1M in employment of which about 2.3M were self-employed; this leaves 21.8M in paid employment. Therefore 3% of those in paid employment would have been 650K (0.03 x 21.8M) jobs. It is shown in Appendix 6 that the average national cost of creating each job would have been about £3600 per year, allowing for savings in unemployment benefits, and the Government not increasing its income through income tax and National Insurance contributions. Therefore, the "National Cost", or cost to the nation of providing the jobs would be £2.34B (650K x £3600). This assumes that all on the unemployment register have an equal probability of being offered one of the jobs i.e. the ages of those obtaining employment are in the same proportion as those who are unemployed (Appendix 6). In practice the cost per person would probably be a little less because preference may be given to younger, lower paid workers.

At £3600 per job this is nearly four times the cost of a job via early retirement (p136)where 600K jobs cost £589M. Nevertheless, this option is still worth consideration because early retirement alone would have only a small effect on the unemployment total. Also, as pointed out by Metcalfe (p145) the cost can be covered by a 2½% economic growth and this growth rate is now being obtained (121). The multiplier effect of giving income to workers coming off the unemployment register would be greater than the effect of using economic growth to raise incomes generally. This would arise naturally from the higher consumption function of the unemployed. There would be a higher demand for goods from the new work force leading in consequence to still more jobs.

However, my foregoing argument assumes that no overtime is carried out to make up 30% of the production lost by the cut in basic hours (p146)and no premium payment is needed for overtime working. In practice it is likely that the 3.4% extra working hours needed (p146) could be carried out on weekdays at say 1⅓ times the standard pay rates. This would increase the total pay of those in employment by 4.5% (1.33 x 3.4%). In 1981 the income from employment was £123.6 B (103) excluding employers National Insurance and Superannuation payments. Thus ,the increased cost to the employer

would have been about £5.6 B (0.045 x £123.6 B). If the Government had again made tax concessions and an adjustment had been made for employees National Insurance payments, the residual cost to the nation would have become about 70% of £5.6 B i.e. £3.9 B. The 75% of table B has been reduced to 70% because the tax payment on overtime will be greater than that on basic pay. The 70% should strictly be reduced further to cover earnings related national insurance contributions but this has not been done in order to compensate for those below the tax threshold. Even so, the use of 70% probably results in an estimate of national Cost that is slightly high. Combining the £3.9 B for increased overtime with the £2.34 B cost of the new workers the overall national cost of the 650 K jobs would be £6.3 B or about £10 K per job per annum i.e. this is about ten times the cost of jobs via early retirement. In 1981 the Gross National Product at factor cost was £215B; assuming the current growth of 2½% (121) this would produce £5.4B. Thus, even now, the cost would be high but not impracticable if those in employment can be persuaded to forego real wage increases in exchange for the increased leisure hours and the greater security of their jobs. It is though possible to provide the increased holidays for workers at far less cost by introducing a four day working week.

THE 4 DAY WEEK AND JOB SHARING

It would be possible to mitigate the cost of extra holidays by giving them in another way, by individual days instead of groups of days. Adding a day onto a weekend would give a 3 day break which most people would still regard as a usable block of time, a requirement identified by the Trade Union Research Unit (p141) by myself during interviews and by numerous other authors. If the extra 4½ weeks holiday is taken as 22 working days then this and 2 of the existing Bank Holidays could be exchanged for 1 day off for half the working weeks in the year. It only needs a small increase to the hours of the remaining working days to allow everyone a 4 day week. Allowing for the weeks occupied by annual holidays it requires workers to increase their hours of work per day by just less than one hour bringing the average basic day to just under 9 hours. It is shown (table 42) that in the Reading area about 69% of people would accept this length of day. Of the other 31% about

one third are part-time workers, mainly women, who presumably would still want part-time work. Thus,the majority of full-time workers would be willing to work the proposed four day week for the same salary. As this arrangement would more readily lead to work for the unemployed, explained below, and a minimum of 62% of people in Reading (table 61) appear to be prepared to make a sacrifice to do this, then the percentage of workers likely to oppose this method of working should be very small. Four day week working is described in detail earlier (ps 45 to 50).

By concentrating the normal working week into 4 days the prospect opens up for some employers to make better use of their capital facilities by using their premises for 6 days; part-time work could be offered for the other 2 days. R. Marris (96) attributes the low utilisation of capital facilities in British Industry to the high cost of employing workers in socially abnormal hours i.e. shift work and overtime. Any system which encourages the replacement of overtime working by part-time working will assist employers make greater use of their buildings, plant and other equipment at basic hourly wage rates instead of premium rates. Instead of utilisation for 39 hours a week, without overtime, facilities would be used for 53 hours (35 + 18) i.e. a 35% increase which would reduce production costs. Some current overtime working at premium rates could be changed to part-time jobs at basic rates, this further reducing the cost of production. The greater cost effectiveness of industry should improve its competitivity through lower prices. This would increase demand for its output and create vacancies for more labour. J. Flemming, Fellow of Nuffield College, (163) supports the view that the costs of cutting working hours could be compensated for by using a form of shifts to cover 6 day working. However, he is not optimistic that the Trade Unions can think in these terms.

There is a great shortage of part-time work opportunities and their availability would increase the number of workers seeking early retirement(p125)thereby providing full-time jobs for the unemployed. It is found in my survey (table 79) that 56% of men and 62% of women below pension age would like gradual retirement and many of these would be willing to drop down to a part-time job. In fact, even greater flexibility of working would be possible, for once

the principle of job sharing has been established in an organisation the division of work need not just be 4 + 2 days but could also be 3 + 3 days depending on employees' preferences. Unfortunately not all the part-time jobs would provide work for the unemployed because some retired people would be tempted back to work. The desire for a part-time job is expressed by 45% of retired workers in my survey(p100).Of those wanting part-time work, 66% want to work for 2 or 3 days. To reduce this tendency at a time of high unemployment the Government may have to introduce penalising legislation, eg higher income tax levels for pensioners remaining in paid employment or reduced pensions when working. Such measures would also persuade some pensioners currently working to make way for younger people in need of jobs.

O. Robinson and J. Wallace find (181) that the growth in part-time work since 1951 has been much greater than the growth in full-time employment. In 1951 part-time work was 0.3% for males and 11.6% for females. By 1981 these had grown to 5.9% and 41.6% respectively. They report that the highest proportion of part-time workers are in the lowest graded occupations, and hourly rates for part-time and full-time workers are the same. Employers prefer part-time workers to match peak demands because full-time workers require premium rates for overtime. There is an unquantified belief amongst employers that part-time workers have a higher productivity. Robinson and Wallace also find that there is no shortage of people willing to take part-time jobs supporting my conclusion that many more people will take up part-time work if additional opportunities are made available.

According to Cohen and Gadon (91) part-time work has always existed but the concept of permanent part-time work is relatively new; it may be permanent only during a particular life phase such as raising children, pre-retirement, combined with part-time study either pre-career or retraining in later life etc. Job-sharing is a particular kind of part-time work where a job is divided between two people each of whom works an agreed portion of the job. There are several variations where the job is split by the day, the week or even the month. The six day working mentioned above is a variant of division into days per week.

Cohen and Gadon point out that permanent part-time work allows employers to retain the experience of those who would normally have

left an organisation for family or retirement reasons. It provides a reservoir of younger trained staff who may become full-time at a more convenient life phase time. It provides an opportunity for those who wish to increase earnings by working long hours at some time during their lives, say, when setting up home and starting a family. Such workers could have two distinctly different jobs giving greater variety and interest, which give more job satisfaction, and which are less tiring.

Job sharing needs varying degrees of communication between those sharing the same job depending on the nature of the work. At times of illness, holidays etc there is the potential for the other worker to keep the work going to meet priorities. Managers in the US feared the complexity and cost of job sharing but find it better than expected in practice. There is considerable evidence that a shared job is at least as productive as one full-time job and often even more so. Cohen and Gadon quote a survey of 122 companies by the American Society of Personnel Administrators that report part-timers are more productive than full-timers. An example given was Alza Corporation who started job sharing with low level work but now feel that any job can be shared. An advantage they find is the ability to pass on experience from older to newer workers. The advent of cheap tape recorders also allows information to be passed from one worker to the other on the second "shift". A second example is the Control Data Corporation whose plant at St Paul, Minnesota, is operated entirely by part-time workers and is more productive than similar plants operated by full-time workers.

The success of job sharing in the US appears to contradict the result of my Reading Survey (table 36) where 38% say it would be difficult to share their job. However, 360 of the respondents indicate why they think job sharing would be difficult. 53% think that continuity of the work may be affected, 18% foresee the need for close contact with their partner, 13% do not think their customer or client would wish to deal with two people, 7% say that they are managers or equivalent and the job cannot be shared, and 9% of comments are irrelevant. An examination of all the comments (Appendix 7) throws strong doubt on the validity of many of them and I believe that most people could share their jobs providing they are shown how it can be done. In contrast my survey shows

there is interest in restructuring the working week for 51 (23%) of those replying to my open ended question (Q 30) either propose the introduction of the 4 day week or more shift work including the system of having 2 sets of workers to cover 7 days per week working.

As G. Golzen writes (92) in 1982, "Is job-sharing one of those ideas that are irresistible because the right time for them has come, or is it merely a well-meaning but impractical attempt to tinker with tradition? Is the Government trying to disguise the unemployment figures or has it come to a genuine realisation that old working patterns will have to change under the impact of new technology?" He writes that the advent of the job-splitting scheme in January 1983 has given job-sharing a degree of official backing that is not normally given to radical notions of employment. This scheme gives a grant to employers who divide existing jobs into two to provide work for a person on the unemployment register or to avoid redundancies. He reviews the advantages of the scheme but mentions that statutory changes would be needed to prevent an increase in an employer's National Insurance contributions, and to protect the pension rights of employees whose pensions are usually based on final salaries.

There is no conceptual difference between sharing a job and splitting a job but the Trade Unions see job-sharing as a way of providing career opportunities for those who do not want to work full-time while job-splitting is seen to be a means of saving unemployment and supplementary benefit payments. One Union, the Institution of Professional Civil Servants (93), considers that job-sharing represents a loosening of the strait-jacket of the 40-hour week. They declare that it would enhance personal freedom of choice and increase flexibility so that workers can better combine employment with outside responsibilities and interests.

Another variant of job-sharing is alternate week working. This has been well established in the financial sector for many years. Case studies carried out at two Banks (94) show that there have been advantages both for management and staff. Managers find staff work better and are not prone "to bad days", presumably because they have a whole week of leisure once a fortnight. Staff feel that the Bank gain more than the staff but they recommend the

working pattern to others. As one worker said "You get a three weeks holiday for just one week off". Under this system if workers are willing to do the work of their colleagues when they are on holiday, on a reciprocal basis, there is no need for an annual holiday period as such; more than one 3 week holiday a year can be arranged in this way. Therefore, the present allocation of about 4½ weeks can be given up to reduce the length of the working day. This principle can also be applied to any variant of "4 day week" working. Of course, human nature may make it difficult to accommodate this logical arrangement; it needs co-operation between the two workers.

THE EFFECT ON UNEMPLOYMENT OF THE 4 DAY WEEK WITH JOB SHARING

It is considered (p144) that about 3% more employment will result from a cut in working hours of 10%. A pro rata distribution of 650 K workers from the 3% increase is shown in table 88, across all industrial sectors although variations between sectors are likely. Also shown is a further 3% employment resulting from the 4 day week with job sharing. This arises because one of the measures to maintain output in industry after a 10% cut in working time is to increase overtime by 3.4% of the labour force effort (p146). However, with 4 day week working many employers will have the cheaper alternative of standard rates of pay for part-time workers. The national cost will be lowered, as previously, by savings in unemployment and supplementary benefits. It is assumed that 0.4% will still be made up by overtime working because some firms may find it more convenient. A further factor which is not included in the calculations is the opportunity for employers to convert existing permanent overtime work at premium rates into part-time work at standard rates. This should compensate for any optimism in the 3.0% and 0.4% division of the 3.4% used above. In 1981, in manufacturing industry alone, 1.14M operators worked an average of 8 hours overtime per week, i.e. a fifth of a week. Therefore, this overtime is effectively equivalent to 230 K (1.14M ÷ 5) unemployed. Of course, not all this overtime can be converted into part-time jobs but most of the permanent overtime can. Overtime working is far more prevalent in the manufacturing industries than the rest of industry but similar smaller savings can be made elsewhere. As mentioned before, the Government will

need to encourage employers to use half-time workers instead of overtime by feeding back into industry the savings from having less unemployed.

Table 88. Estimates Of Jobs Created By The 4 Day, 35 Hour Week And Job Sharing (Thousands)

Sector	Jobs in 1981	3% Increase from hours cut	3% Increase from 4 day week	15% Increase from 6 day working	Total Increase
Agriculture, Mining	689	21	21	0	42
Metals, Chemicals	758	23	23	114	160
Mech/Elec Eng.	2,366	71	71	355	497
Other Manufacturing	2,964	89	89	445	623
Construction	1,143	34	34	0	68
Transport, Communications	1,443	43	43	0	86
Distribution	2,767	83	83	0	166
Insurance, Banking	1,316	39	39	0	78
Professions, Science	3,757	113	113	0	226
Public Administration	1,920	57	57	0	114
Miscellaneous	2,579	77	77	387	541
Total	21,702	650	650	1,301	2,601

Table 88 also includes a 15% estimate of the job increases expected in manufacturing industries and miscellaneous services resulting from the introduction of a 4 day week. The demand for leisure services will increase when more leisure time is available and manufacturing industry can increase output when it becomes more cost effective and competitive under a 4 day week due to greater capital utilisation as discussed later (p 158).No increase has been allowed elsewhere, although undoubtedly some will arise, because the potential demand for increased output is far less. In mainly satisfying the home market, and with little foreign competition, the other industrial sectors will not expand due to the 4 day week. In the case of Agriculture and Mining, they already work close to

their full potential. Thus most firms would have a staff increase of only about 6% (3 + 3) while manufacturing would have about a 21% (3 + 3 + 15) increase. In the former case staff numbers per day and facility size could drop by about 30% in changing to 4 + 2 day working while maintaining constant output. As manufacturing and leisure industry employers would only take on the 15% extra staff, say, to meet demand and to raise profit levels there would be no extra "national cost" (see p147) associated with them. In contrast increased National Costs apply to both the increases of 3%.

The 15% increase in jobs in the selected sectors was decided as follows. Management with an increased potential demand for their products or services can occupy their premises for 4 days with their original number of staff and employ an equal number of workers in a second shift for 2 other days. Thus the potential increase in staff is 100% but as these workers would only be employed for half a week then the full-time jobs increase would be equivalent to 50% of the original staff. However, some companies would already be operating shift work at the weekend and these would not be eligible for further expansion. It is shown by D. L. Bosworth and P.J.Dawkins (95) using New Earnings Survey data, that shift work in manufacturing industry is about 16% of the total work. I deduced from their data on the types of shift operated that about 60% involve weekend working to some degree. Thus 10% (0.6 x 16) of manufacturing industry is already engaged on weekend work and a 10% reduction of extra full-time jobs is therefore made to the 50%. The actual percentage would be a little higher as some overtime working is organised on Saturdays and occasionally Sundays. Some staff on non-productive activities such as administration would not need to be replaced but could spread their activities to cover both shifts of workers; possibly about 10% can be regarded in this category. In some cases there would be difficulties in translating production potential into actual demand due to market inertia and ineffective sales management. Assuming no more than one third of the potential is realised, this, and the other factors, would reduce the staff increase to approximately 15% As seen in table 88 the 15% increase represents 1.3M full-time jobs but they would be available as 2.6M half-time jobs i.e. about 18 hours each spread over 2 days.

Not only will shift working at weekends reduce the prospects of

employment expansion by about 10% but it will be either more difficult or more costly to pass on the advantages of reduced hours to those already engaged on shift work. The 4 crew, 3 shift method of continuous operation covers the 168 hours in a week by each crew working 42 hours. An increase to 5 crews would reduce their working week to 33½ hours and would increase employment and costs by 25% unless productivity increases could be achieved with smaller shift crews; possibly in this specialised case the shift workers would not gain extra leisure but would work normal hours and receive a compensatory wage increase of, say, 10%. Double day shift, commonly 6 to 2 and 2 to 10 over 5 days could change to 4 day working but it is less likely that each shift would be lengthened by 1 hour, as done for normal day workers, because the hours would become even more unsocial. The required effect on unemployment would be obtained but labour costs would be higher unless there is a trade off against wages. Alternating day and night shifts, and permanent day and night shifts, each operating with 2 crews over 5 days would readily fit into the new working pattern. Unfortunately these last 2 shifts are only half as frequent as the first two described above according to Bosworth and Dawkins (95) table 7.10. The problem of making adjustments for some shift workers is not insurmountable but it would require greater planning and negotiation than for non-shift workers.

The long term aim would be to convert the projected 2.6M half-time jobs in manufacturing industry and miscellaneous services into full-time jobs. The stimulous to production of greater use of facilities and lower overtime costs mentioned later (p158) would help in this respect. In the short term conversion would be assisted by encouraging those approaching retirement age to exchange full-time for part-time jobs; Government measures to protect pension rights of those making way for the unemployed would probably be needed to obtain worthwhile numbers of volunteers. Labour Force Survey data for 1981 reveal that there are about 800K males aged 60 to 64 and 400K females aged 55 to 59 in full-time paid work in the United Kingdom. These 1.2M workers are possible candidates for part-time work being in the 5 year period before the age for normal retirement on State pensions. My Reading survey (table 79) indicates that about 60% would prefer gradual retirement, many through part-time work. Not all the 720K (0.6 x 1.2M) would

choose to change to part-time work but it is expected that many would welcome the opportunity to reduce their working days to 2 out of 6 on half pay or 3 out of 6 on three quarters pay especially when the income tax system would result in more than 50% and 75% take home pay respectively. This view is supported by my survey results (p 84) on the choice between income and leisure and (p102) the willingness to make a small sacrifice to help the unemployed. Not all the older unemployed would want to return to full-time work but many would settle for a half-time job until they reached retirement age. In 1981 about 130K men and 40K women were unemployed and aged 60 - 64 and 55 - 59 respectively.

Another more promising way of converting part-time jobs into full-time employment would be for a worker to take on two half-time jobs. This would provide full-time pay for 4 days work which need not necessarily be in the same occupation. The opportunity to add variety to their working lives would appeal to many people. The drudgery of some low level work would be relieved by a change of environment, work colleagues and work procedures twice a week. Young people would be able to experience two types of occupation simultaneously which would help them to decide more confidently on their future careers. Opportunities for promotion might be less for those working only 2 days per week for one Company but this would not be inevitable. Recognition of above average capabilities in a "2 day" worker could lead to an offer of a "4 day" job at the first opportunity. In any case one should not compare a 2 day with 4 day working but with no work at all. I am sure that many of the unemployed would readily accept 2 jobs each of 2 days rather than wait indefinitely for a single full-time job.

The cost effectiveness of the 4 day week can now be evaluated and compared with a corresponding cut in working time via annual holidays. From table 88 we see that full-time job opportunities have increased from 650K to 1.3M due to the second 3% increase in jobs, from overtime reduction. There are also 2.6M (2 x 1.3M) half-time jobs opportunities obtained from improved efficiency in some industries. Thus there are 2.6M full-time job equivalents in total which are sufficient to remove the non-structural unemployment problem. It is purely coincidental, but a little confusing, that 1.3M full-time jobs or equivalents are estimated to arise from

both the reduced hours of work and the increased capital utilisation of 6 day working.

Removal of 650K off the unemployment register for reduced hours of work (p147) is costed at £2.34B to the nation therefore removal of 1.3M would cost £4.68B. Increased overtime working would now only increase costs by 0.53% (0.4 x 1.33%) because to make up lost production due to a 10% reduction in hours would require an overtime component of only 0.4% of normal staff effort (p153) additional staff being employed to do the remaining 3% work previously expected to be done by overtime working. Applying the 0.53% to total income from employment of £123.6B gives a cost of £0.65B. Once again assuming the Government makes the same tax and National Insurance concession (see p148)the cost to the nation would reduce to £0.46B (0.7 x £0.65B). Combining the cost of the new workers and the residual overtime gives a total of £5.2B (0.46 + 4.68) for 2.6M full-time jobs (or equivalents) i.e. £2000 per job. This is roughly one fifth of the cost of the increased annual holiday option and is only about twice the cost per job from early retirement. Furthermore the cost could still be covered by the current rate of economic growth (p147).

To reduce the chance that my assumptions have resulted in an optimistic estimate of the cost of the new jobs I have ignored the multiplier effect. J. Robertson et al (97) carried out a study in British industry in the 1970s. Their table 82 shows that for every £1 increase in final demand for industrial output another £0.86 of output is required from industry as a whole. If output is proportional to manpower an initial increase of one job will lead to a 1.86 final increase and the 1.3M increase in jobs giving increased production from improved Capital Utilisation could grow to 2.4M. This will probably not be the case but some increase will surely result. If it is only one quarter of the increased financial turnover in industry then a factor of 1.21 will apply. Thus the 1.3M jobs from the 15% increase in staff from job sharing and the 4 day week may rise to 1.50M (1.3 x 1.15) i.e. a further 200K jobs; not included in later calculations. There will be no multiplier effect for the other 1.3M jobs because they are only making good production lost by cutting hours.

Another factor which has not been taken into account in the calculations is any increased profit from the employment of the 15% more workers in manufacturing industry. This has been assumed to be zero deliberately because the emphasis has been on creating jobs rather than increasing profit. The additional work force has been taken to be self supporting with the increased output at lower prices giving the same overall profit. However, this is unrealistic and in practice, employers will probably take the opportunity to raise profits even if by less than the potential offered by the additional workers. Because of the fixed costs of industry a 15% increase in the productive labour force could lead to about a 25% average increase in profits. If only 30% of this is realised and the rest is applied to job creation, the increased profit of manufacturing industries in 1981 could amount to about £2.5B which is half the estimated National Cost of 4 day week working. Again, this potential benefit has been excluded from calculations to avoid an optimistic assessment of the potential of the 4 day working week with 6 day use of facilities.

A major component of the fixed cost of industry is the capital investment. G. Winston, in his paper on Capital Utilisation (101) considers the irreconcilability of the working hours preferred by people and those that can be worked by Capital equipment. He quotes a 1963 article by M. Foss (102) on the utilisation of plant and equipment in the United States between 1929 and 1954. Even in 1954 utilisation only reached 22.9% of the maximum possible. With 4 + 2 day working and a 9 hour day British Capital equipment would be used 32% of the available time; this excludes those businesses already working on Sundays which would further enhance the 32%. The financial benefit to businesses of this higher usage of buildings and equipment has not been quantified here as this would, in itself, by a major task. Nevertheless, Capital Formation in 1981 was £39B and therefore if only a small percentage had been saved by greater utilisation of existing facilities then it could have made a significant contribution towards the cost of reducing unemployment.

Some of the social advantages of the $3\frac{1}{2}$ day working week (ps 48, 49 & 161) would also apply to 4 + 2 and 3 + 3 day working without the disadvantages (p49). With Banks, Local Government Offices etc open 6 days per week, while each person works for only 4 days, easier

access would ensue. The longer "weekend" would also reduce the congestion in shops, sports facilities and leisure facilities in general. There would also be about a 30% reduction in road congestion at the "rush hour" on work days.

A minor word of warning must be raised to avoid the conclusion that this method of working is a panacea. The main problem foreseen is that a worker cannot carry out 2 part-time jobs at the same time of the week. Therefore it would not be possible to have 4 day working universally from Monday to Friday and the half-time jobs from Friday to Saturday. Companies would have to organise their staffing to provide some half-time jobs between Mondays and Fridays. It necessarily follows that some full-time jobs would involve Saturday working.

My Reading Survey sought to determine the degree of Saturday working currently undertaken and the attitudes of respondents to it. Table 16 shows that of those completing the workers questionnaire, 54% have some experience of Saturday working while 27% frequently work on that day. Therefore schedules of work including Saturdays would probably be accepted by sufficient people to allow work in industry to be organised to accommodate the half-time workers at various times in the week. Willingness to work on Saturdays is shown as 22% for men and 27% for women in table 39, which compares approximately with those actually doing Saturday work now. It is reasonable to expect that the long term unemployed would be even more willing to work on Saturdays than those now at work in order to obtain a job.

THE 3½ DAY WORKING WEEK

The work sharing option that initially appeared to be very advantageous was the concept of the 3½ day working week described earlier(ps 48 & 49). This concept is a natural extension of the division of the week into two sections each of 3 days (p.150). An idea similar to this was put forward in 1980 by M. Brandini (99) secretary of the Italian Christian Democratic Trade Union Confederation who is quoted as proposing that workers should work 4 days and 3 days during alternate weeks in order to reduce unemployment. As the working day is to be increased simultaneously to 9 hours, from 7 or 8 hours, the total hours will be similar. Therefore, the only way that unemployment can be reduced is for some other workers to

use the same facilities for at least part of the other half of the fortnight. However, the article does not give details of the work pattern for these other workers.

The main advantages of 4 + 2 day working are the use of capital facilities for 6 days per week and the provision of part-time jobs in the two day period. These advantages will be magnified by using all facilities for 7 days per week, with people working for an average of $3\frac{1}{2}$ days per week. In practise work may occupy 4 days one week followed by 3 days the next to avoid the need to travel to work for half a day. It should be apparent that the facilities will be in use for exactly half the days in each fortnight leaving the theoretical opportunity for an equal sized work force to utilise the unused capacity. This would not be practicable because there are not enough people in Britain to double the whole work force and there would be no demand for their labour. However, as suggested under 4 day working there would be good potential for an increase in jobs in the manufacturing and leisure industries because manufactured goods could be produced at lower unit cost, and the demand for leisure activities would rise when more leisure time is available to workers. The new jobs provided would no longer be half-time jobs as with the 4 + 2 day week, but full-time jobs each of an average of 35 hours per week; this does not rule out the possibility of staffing some of the jobs with part-time workers to take advantage of the known demand for part-time jobs described earlier (p125). For instance, the seven days could be covered by 3 workers, working 2, 2 and 3 days. However, in reducing working days from 8 to 7 per fortnight the hours per day would need to rise to 10. This might not be acceptable to most workers as indicated by table 42 where only 32% of people were willing to work over 9 hours per day. However, the advantages of working 7 days a fortnight instead of the present 10, and having 3 days less travel to work, may persuade people to accept fewer days of longer hours. The study by Poor (27) of a working week consisting of 4 days each of 10 hours, described earlier (p46) supports this view because only a small percentage of workers in her study find a 10 hour day too tiring.

In operating a $3\frac{1}{2}$ day working week it will be necessary for some people to work on Saturdays and Sundays. We have already seen (table 39) that about 65% of men and 55% of women are willing to

work at weekends. Saturday work is more popular than Sundays probably due to previous work experience (table 16). Objections to Sunday working on religious grounds are only given by 9% of respondents (table 41) therefore this is not an important factor to consider in planning weekend work. With relatively few constrained by religion it should not be difficult to arrange work schedules that allow those that want to, to attend religious services. The three other reasons for opposing weekend work are all of similar importance to respondents. Two of the three apply under the present social structure but will not where the $3\frac{1}{2}$ day week is in operation. The first of these is the problem of looking after school children at weekends. As school hours will also be arranged, with two sets of teachers, into 4 and 3 day periods identical to their parents this problem will not arise; parents and children will be home on the same days each week. When advertising a job employers will have to state in which part of the week it falls - early, Monday to Thursday or late, Thursday to Sunday, say. Similarly, job hunters will apply for work in the period that best suits their needs. The second reason for not wishing to work at the weekend is concern over missing sport and social activities. However, with effectively two weekends per week it is expected that sport and social activities will develop by market forces to supply the needs of both groups of people; with so much leisure time available these needs will undoubtedly be larger. There may be occasions when a person will want to attend a special sports or social function that occurs within his work period but, as with all forms of job sharing, the possibility exists that his partner can stand in for him; the favour being repaid at another time.

The third reason for opposing weekend work, the need to keep in contact with friends and relations, is a more complex problem which will apply even more to the $3\frac{1}{2}$ day working week than to the 4 day week system. Family members within the same household will plan to work or attend school in the same part of the week and therefore they should all be together at the "weekend". However, there will only be a 50% chance of being in phase with other relations and friends. There are 109 comments, by respondents, associated with question 22 of my worker's survey which asked why workers are not willing to work at the weekend in exchange for a free weekday.

53 express concern over their spouse not being with them due to weekend working but not one of them mentions the need to be with other relations or friends. Therefore, close contact with those outside the immediate family appears to be of relatively low importance; nevertheless close friendships particularly of a sexual nature must be an exception even though no one mentions them. Some of those commenting on question 22 misunderstood the question for 33 of them say that they will not work at weekends because they need time off from work, even though the question explains that weekend work will result in time off on other days. Of the other 17 comments, 8 mention that weekends, especially Sundays, have a special quality, 3 mention Religion, 3 express concern about looking after their children, while the remaining 9 are comments unrelated to any other. I suggest that the number of close contacts a person makes in society during a lifetime is very small in comparison with the total possible. Therefore a restriction of contact opportunities by the $3\frac{1}{2}$ day working week will in general be of little consequence. The main problem is where friendships already exist or develop at evening meetings and which cannot be strengthened by weekend contact without one person changing his job and thereby affecting other relationships; this is a major disadvantage of the system. One can in theory take steps to avoid deep relationships developing with a person from the alternative working period but most human beings do not behave in so logical a manner. If one can accept this disadvantage the advantages are many.

In the first instance, I have already estimated an increase of 15% employment due to the lower units costs from increasing the use of capital facilities from 35 to 53 hours / week with a 4 + 2 day week. Under a $3\frac{1}{2}$ day working week the working hours will rise to 70 hours per week and with it the possibility of employment of, say, a further 15%. This is equivalent to about another 1.3M jobs. The complete removal of the current unemployment by such means is impracticable because those unemployed may not have the required skills, those that have may not live near the new jobs and the jobs may not materialise because Industry may fail to take advantage of the potential offered to them. No claim is made as to the actual percentage reduction to be expected although it would be

considerable and, as shown earlier for the 4 day week, at a probably acceptable national cost.

The social and economic advantages of the 3½ day working week were introduced earlier (p48). There would be even less travel to work than with the four day week, each person having 7 journeys to work each fortnight. People in the Reading area would save on average 50 minutes per return journey (p77) or 1¼ hours per week compared to the current 5 day week. Travel costs would be reduced correspondingly if not a little more. By spreading the workforce over 7 days only half the Public Transport would be required at peak periods each day. This saving in public transport vehicles should cut travelling costs, and congestion on the roads should be cut by a similar amount. Traffic congestion is reviewed in the Economist in 1979 (100). Examples are given of slower journeys, the need for more public transport and the higher costs from the clogged arteries of cities. It is estimated that in London from 1976 to 1978 congestion resulted in the proportion of bus routes severely disrupted increasing from 8% to 30%. Admittedly traffic to work would be as high on a Sunday as for any other day but the rush to the "seaside", say, on a summer Sunday would now be spread over many other days because every day would be a "weekend" for someone. Overcrowding of sports and other leisure facilities would be reduced for similar reasons and the more efficient use of some facilities should also reduce the cost per person.

The leisure activities which may expand following the introduction of either the 4 or 3½ day week have been indicated (p.88) the most favoured activity in table 38 is travel selected by 81% and 79% of employed males and females respectively. While a small part of this demand would be lost to overseas holiday resorts the majority would boost British facilities; longer weekends would encourage many more day trips and long weekends away from home. The much smaller emphasis on travel by the retired, only selected by 40% suggests that extra travel is wishful thinking that does not materialise or that one soon becomes satiated. On the other hand the retired may just find travel too tiring or expensive. Hobbies are also highly popular and are chosen by about 71% of the employed and 85% of the retired. The high actual participation

in hobbies by the retired suggests that this desire by the employed would be fulfilled. Suppliers of materials and equipment for hobbies should profit from this. The suppliers of "do-it-yourself" merchandise should also profit judging from the choice of 57% and 60% of employed males and retired males. However, this might reduce the demand for small building firms, garages, decorators etc. Increased demand on sports facilities is shown by this choice by 41% of employed men and 32% of employed women. Presumably golf courses, squash courts, swimming pools etc would benefit from increased days of leisure. No other strong preferences emerge from the responders in the survey. All the other activities listed in the questionnaires receive significant but less support than those specified above.

Because two sets of workers could sequentially occupy a single facility when work is spread over a period of 70 hours, the facilities need only be half their present size. Smaller factories with fewer machines would be another factor in reducing costs, as would the more rapid depreciation of equipment. The more rapid turn round of machinery would enable its replacement to be faster resulting in industry operating more modern machines at any time without an increase in costs. Many public buildings would be of a smaller size, for instance schools. Each of the two groups of children would attend the schools for the same hours as at present but spread over 7 days per fortnight. To avoid too long a day either sports would be voluntary, at the weekend only, or homework would only be set for weekends. Similar minor adjustments would have to be made in other spheres of life but I believe they could all be accommodated. Of course many occupations with a tradition of shift work would be unaffected, e.g. hospitals, police, fire brigade, except for a reduction in hours.

Early in the research programme it appeared that the $3\frac{1}{2}$ day working week would be the preferred way to solve the problem of growing levels of unemployment. The survey results clearly indicate that society may accept the conditions of this working pattern but the natural reluctance to change, also shown in the survey, could prevent its introduction. Once operating, the main problem is likely to be the establishment of close friendships between individuals in the two working groups (p.163), this could be a real

problem for a minority of people. In addition, the problems of the transition period between current practice and the full-scale operation of the $3\frac{1}{2}$ day working week may not be worth the economic gain above that obtainable from 4 + 2 day working per week. The latter working pattern gives less economic advantage to manufacturing industry and provides fewer new jobs than $3\frac{1}{2}$ day week working but it could be introduced more easily and would be more readily accepted; gains over the current 5 day week have been shown already to be appreciable. As it is likely that 4 + 2 day working can provide jobs for the majority of those currently unemployed, (p157) I suggest that the $3\frac{1}{2}$ day working week option should not be considered now; it is an ambitious social engineering concept that might be introduced in the future after less radical measures, such as 4 + 2 day working, have been well established and become the new working norm.

Before reaching final conclusions it is desirable to review relevant additions to the literature since my research began in 1978/79. It is possible that the nation's economic position has improved or worsened, the TUC and the Government may have changed their positions on the need for radical methods of reducing unemployment, and new views may have been expressed in the literature on how working patterns can be changed. All these need to be taken into account when evaluating my findings.

Chapter 6

Recent views on the unemployment situation

THE CURRENT POSITION AND FUTURE PROSPECTS

In the introduction to the thesis I referred to my awareness of the growing problem of unemployment, and showed the trend from 1965 to 1977 in figure 1. Between the end of the second world war and the early 1960s mass unemployment appeared to have been abolished in Britain. The number of people out of work averaged 335K (1½% of the work force) in the 1950s and 447K (2%) in the 1960s (104). It was only in the late 1960s that unemployment began its climb as shown in figure 1. The peak of 1 million unemployed in 1972 coincided with Mr Heath's Conservative Government; he introduced expansionist measures to create jobs in the following 2 years but the quadrupled price of oil at the end of 1973 initiated the world recession which has been followed by the massive rise in unemployment of recent years. This increase has been particularly bad since my research began, as shown below (table 89).

Table 89. Distribution Of The Total Working Population In The U.K., 1978 to 1982 (Thousands)

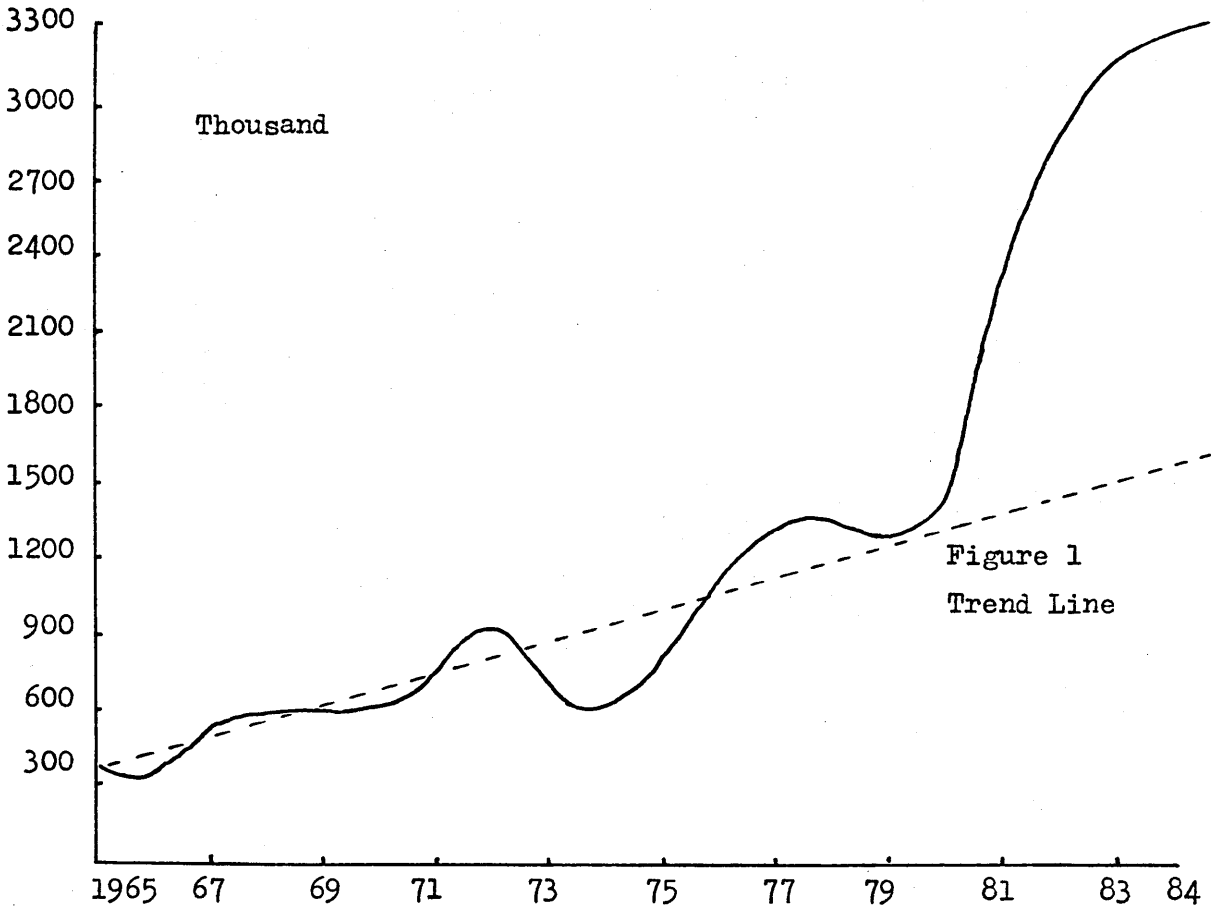
	1978	1979	1980	1981	1982
Total Working Population	26342	26553	26706	26548	26535
Unemployed	1343	1235	1513	2395	2770
Employees In Paid Employment	22777	23101	22859	21701	21223
Forces	318	314	323	334	324
Self Employed	1904	1903	2011	2118	2218

Source: CSO Annual Abstract Of Statistics, 1984.

Although the total working force has hardly changed over the period shown, unemployment has doubled. The significant increase in self-employed has been one consequence of the lack of job opportunities. Extrapolation of the trend line in figure 1 would have led to an unemployment figure of about 1.4M in 1982, far below the 2.7M actually achieved. Even if the trend line had been taken through the 1977 peak it would only have reached 1.8M by 1982. Assuming that this latter line indicates the growing non-recession unemployment then 0.97M (2.77M - 1.8M) could be blamed on the recession. If the original line is more correct, then the recession might be responsible for 1.37M (2.77M - 1.4M). Thus even when the recession

ends the U.K. may still find itself with 1.4M or more unemployed unless an economic boom develops. In the worst case the underlying unemployment trend is to increase at about 100K per year. An illustration of the more recent unemployment figures is given in an extension to figure 1 showing a further worsening of the problem. (see figure 6).

Figure 6. U.K. Unemployment Trend 1965 - 1984

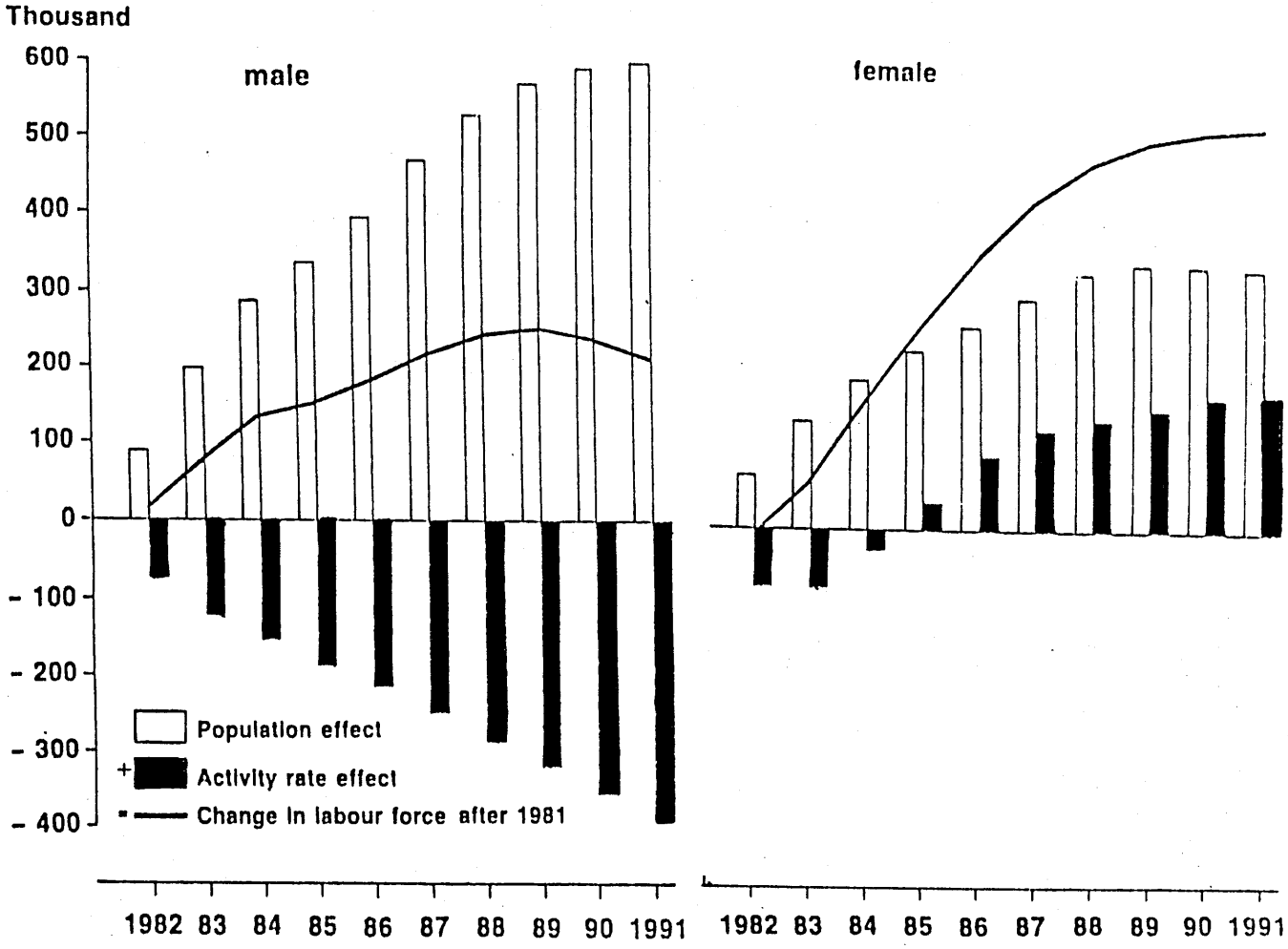


Source: Employment Gazette, August 1984

The picture is even gloomier when the projected working force numbers for 1991 are considered. The Department of Employment estimates that the civilian labour force will rise by 0.75M between 1981 and 1991 and mainly before 1988. (117). Most of these will require jobs just to maintain the unemployment level at about 3M. The number of people eligible to join the labour force will actually increase by about 1.1M over this period but not everyone will wish to do so. As figure 7 (117) shows a fall in male employment activity rates by 1989 will result in about 300K being removed from the work force at the same time as 570 K have been added to it, i.e. an overall gain of 270K.

However, for the same year, an increase in female employment activity rates is likely to result in an increased labour force of about 140K, in addition to an increase in the number available of about 340K, i.e. an overall increase of 480K.

Figure 7. Projected Change In The Civilian Labour Force 1981 to 1991.



Source: Department Of Employment 1984.

In spite of continued increases in unemployment, activity rates for men aged 20 to 54 held up rather better in 1981 than had been expected from the trends observed between 1977 and 1979. This suggests that activity rates in these age groups are considerably less sensitive to the demand for labour than has been assumed in the earlier estimates to 1986 published in the April 1981

Employment Gazette. Thus,the tendency not to seek work when unemployment is high because of the belief that there are no jobs available is less than originally thought. In contrast, activity rates for older males continued to fall between 1979 and 1981, many due to early retirement; between 1977 and 1981 the number of men retiring on the Job Release Scheme increased from 10K to 50K. The continuing growth of female activity rates has slowed but the tendency for lower birthrates since the mid 1970s now results in women being away from work for a shorter period to tend their children.

An unemployment peak of over 3.3M was officially reached in September 1982, and has continued close to this level to the end of 1984, but this does not give the complete picture. To be counted as unemployed people have to be registered and be actively looking for work. Surveys and censuses have revealed many more people who have not registered but who would like to obtain jobs. These include those not eligible for benefits, some housewives and those on temporary job-creation schemes. The Manpower Services Commission reckons that the number who could be classed as unemployed at the end of 1981 is as high as 4M. A counterbalancing factor is the black economy where many of the unemployed actually carry out jobs such as car repairs, window cleaning, decorating etc without declaring it to the authorities. K. Matthews, a Liverpool University lecturer (105) estimated that in 1973 there were only 36K in the black economy but by 1983 the number had risen to 1.3M and represented £16.5B of the Gross National Income.

Irrespective of the increase in the true number of unemployed during my research another measure of the worsening situation is shown by the increase in long-term unemployed i.e. those unemployed for more than one year. The number of longer-term unemployed has been growing faster than the total. In January 1981, 455K had been unemployed for more than a year but by mid 1983 the number had increased to 1.1M, an increase of from 19% of the total to 36% (106). Each year of unemployment makes it harder to find another job. In 1980-81 of those who had been unemployed for 1 to 2 years, 22% found jobs; of those unemployed 2 to 3 years, 13% did, 3 to 5 years, 8% and more than 5 years, only 5% .

The longer a person has been out of work the greater the chances are that he has lost his skills or motivation to work; employers are therefore more reluctant to employ them. This conclusion is supported by the findings of a Manpower Services Commission (MSC) study in 1979 (107). The MSC paper states that "there comes a point when people can no longer sustain their motivation in the face of continued rejection, heightened awareness of their own shortcomings, disillusionment with job-finding services....." "Many of the older respondents were reconciled never to working again". Therefore the unemployment problem is more than just a question of numbers; it is also a question of timing. To delay measures for reducing unemployment may result in disillusionment with society for many people and the loss of the will to work. The hippies who dropped out of society in the 1960s were strongly condemned but the socio-economic structure of society is now conspiring to produce them.

S. Platt of the Medical Research Council (114) has found a causal link between unemployment and suicide attempts, in a study of records covering 100 years but mainly of more recent times. The unemployed are 12 times as likely to attempt suicide than the employed; the longer one is unemployed the greater is the risk. This view is supported by the Samaritans who, in 1983, had over 20% more "new callers" than 5 years earlier. Their London branch express alarm at the increasing suicide rate among the young and the growing sense of frustration, loneliness and isolation felt by the young jobless (118). There are fears that prolonged unemployment will result in alienation with society and lead to further increases in vandalism, muggings and other crimes.

The problem is particularly serious for the youth of the nation who may never have experienced more than a temporary spell of work. Youth unemployment rates are higher than for adults in all EEC countries; figures for 1981 (108) in table 90 show the ratio for a few countries. Also shown is the percentage of employable under 25s who were unemployed in 1981 and 1983 (109). Proposals to bring Youth Unemployment down to the overall unemployment level (11%) in the EEC were put forward in 1983 by I. Richards, The British Social Affairs Commissioner (109). He reckons that 2.5M jobs for Youth

are needed to achieve his aim but not through job-creation schemes. He is very critical of such schemes because they usually only provide temporary jobs and he thinks that the disappointment when they end must be shattering. Richards favours job-sharing for young people which is in line with my proposals discussed earlier under the 4 day week (p148). He also supports subsidies for employers who recruit young people.

Table 90. Youth Unemployment (Age 16 To 25 Years)

	Britain	Italy	France	W. Germany
Ratio Of Youth To Adult Unemployment Rate 1980	3.3	6.8	3.1	1.4
Youth Unemployment Rate 1981 As Percentage	16	30	18	6
Youth Unemployment Rate 1983 As Percentage	27	34	26	14

Source: The Economist 1 August 1981 and 30 April 1983.

The gap between adult and youth unemployment rates is thought to be due mainly to the high wages of young workers (110). Between 1970 and 1981 British industrial production did not rise at all but hourly earnings of adult male workers rose by 398% and those of young workers by 446%. Allowing for inflation the real value of an hours work for adult workers was unchanged whereas young workers had a real increase of 11%. Germany has about the lowest level of youth unemployment in Europe at the same time as lower pay for younger workers. For instance, apprentices are only paid about 30% of adult worker rates compared to about 60% to 75% in Britain. To ensure that any general scheme for reducing unemployment gives preference to younger workers it may be necessary to increase the differential between adult and youth pay in some industrial sectors, particularly manufacturing. Some Trades Unions may oppose such a measure on the grounds that it promotes cheap labour but employers are naturally reluctant to pay high wages to inexperienced younger workers. The problem of high youth unemployment in Britain has been exacerbated by the larger numbers leaving school in recent years due to the boom in births between 1960 and 1970. The number of school leavers is now falling (111) as seen in table 91 but the projected level for 1985/86 will still leave a high percentage unemployed unless the recession ends or strong measures are introduced to provide jobs.

Table 91. School Leavers 1977 To 1986 (Thousands)

	77/78	78/79	79/80	80/81	81/82	82/83	83/84	84/85	85/86
To Full-Time Education	190	190	210	240	240	250	240	240	240
Available For Employment	690	700	690	640	660	650	640	630	600
Total	880	890	900	880	900	900	880	870	840

Source: Employment Gazette, June 1983.

Another factor that contributes to the present unemployment problem is the rise in immigrants by 13% between 1971 and 1981 (112) bringing the total to 3.4M. However, the increase amounts to only 388K of which only a small part is available for employment as many are housewives and children. The number of jobs occupied by immigrants is also less than one might expect because the level of unemployment amongst them is higher than the national average. This is partly due to racial prejudice but is also due to the belief by employers that the average immigrant has lower qualifications and skills. The current immigration laws will restrict the growth of numbers from this source and new immigrants should therefore not add significantly to the future unemployment problem.

Table 92. Unemployment Rates In The OECD October 1982

Country	Unemployment Rate %
Spain	16.0
Ireland	14.4
Belgium	13.5
United Kingdom	12.9
Canada	12.6
Netherlands	11.2
U.S.A.	10.6
Australia	8.6
Italy	8.6
France	8.3
W. Germany	7.2
Austria	3.7
Greece	3.4
Sweden	3.2
Norway	2.4
Japan	2.4

Large scale unemployment is not restricted to the United Kingdom as is shown by OECD data in November 1982 (113) but the figures for individual countries in table 92 show that the U.K. is near the top of the league. The U.K. figure for October 1982 is 12.9% compared to an EEC average of 9.7% and an OECD average of 8.7%

An OECD paper (115) in 1983 states that 20K extra jobs per day will be needed in OECD countries during the last 5 years of this decade to cut unemployment to the 1979 level of 19M. The 1984 unemployment figure is projected to be 34.8M so 15.8M jobs will be needed to bring the total down to 19M. In addition about 19M jobs will be needed to allow for labour force growth between 1985 and 1989 bringing the total new jobs requirement to about 35M. The OECD state that a sustained economic recovery is vital to reduce unemployment. The long awaited recovery now appears to be underway but inroads into unemployment are not expected for some time. Even when the maximum effect of recovery has been obtained it is expected that a sizeable unemployment problem will remain, particularly in Europe. The policies recommended are to hold labour costs to no more than productivity increases, to increase vocational education and skill training, and to restructure working time. The two methods preferred for the latter are early retirement and job-sharing both of which are supported by my research. An even more recent OECD publication (136) predicts that an economic growth rate of 2% in the coming year will result in only a 0.5% growth in employment while the labour force growth will be 1%; thus unemployment will increase still further. The forecast is even more gloomy for it considers that the best of the worlds recent economic recovery is already over.

While the current recession is the major cause of the very high level of unemployment another factor of probably greater long-term significance is the emergence of a second generation of industrialised nations. Even when the recession ends much unemployment will remain because traditional markets for U.K. goods will have disappeared. Not only are many third world countries now producing many goods they once imported from us but they are competing with us for the remaining markets. A rough measure of this competition is shown (116) in table 93 where the manufactured goods component

of the exports of second-tier developing countries rose considerably between 1970 and 1979. Included for comparison is the small increase from developed countries and the fall in exports of other developing countries. The choice for developed countries appears to be either to give up the old exports or to increase production efficiency with automation or robotics; in both cases jobs are likely to be lost. Britain has already suffered from the industrialisation of Japan, Hong-Kong, Singapore, Taiwan etc and is now under the commercial attack of second generation exporters of manufactured goods.

Table 93. Manufactured Exports Of Second-Tier Developing Countries 1970 - 1979

Country	Export Of Manufactured Goods As Percentage Of Total Exports Of Each Country	
	1970	1979
Chile	4	32
Cyprus	5	50
Haiti	22	56
Indonesia	1	3
Jordan	32	39
Macao	86	96
Malaysia	7	18
Malta	79	87
Mauritius	1	27
Morocco	10	23
Peru	1	11
Philippines	7	22
Sri Lanka	2	25
Thailand	5	23
Tunisia	20	34
Uruguay	24	48
Other Developing Countries	11	8
Developed Countries	70	71

One can argue that loss of competitivity against the undeveloped nations is less serious than the possible loss against our peers, (p145)this is because there is general agreement amongst western

nations that the poorer nations of the world should obtain an increase in their living standards. One may take the argument further by saying that it is better they achieve this through their own efforts from production of the lower technology goods than through grants and subsidies from the richer nations. Nevertheless, although Britain can accept the loss of trade on moral grounds it is still a factor contributing to our unemployment problem. In 1979 the problem was small, for the second tier Developing Countries only exported a little over 1% of that exported by Developed Countries but the percentage is expected to increase over the next decade.

Future prospects for employment in the U.K. are considered poor by Prof. W. Godley in 1982 (119) even if the recession ends. Assuming an annual economic growth of 1%, and inflation moderating to 4.6% he estimates that unemployment could rise to 4.5M by 1990. The report states that even with improved competitiveness and an export led recovery the prospects of bringing unemployment below 3M is totally implausible. To make a dent in unemployment Prof. Godley estimates that Britain's non-oil trade performance would have to improve dramatically by 6% per year. A less gloomy but, none-the-less, unencouraging report was issued by the National Economic Development Council in 1983 (120). This report forecasts no jobs growth in 40 key sectors of industry for the rest of the decade; it is based on assessments by 40 industrial working parties. Jobs are predicted to fall in many areas as imports increase and export competitiveness further declines. Mr G. Chandler, NEDC Director-General says that more favourable economic developments recently do not invalidate the report's conclusions and Government action is needed to improve the situation.

Some evidence of more favourable economic developments were given by the OECD in July 1983 (121). They forecast that Britain's economic recovery is underway with real growth of 2¼% per annum expected over the next 18 months. Manufacturing output had reached its lowest level for 10 years in the latter half of 1982 but there are now signs of recovery. However, even with this improvement no reduction in unemployment is to be expected as much of the growth is expected from productivity increases rather than a larger workforce. While unemployment in Britain is expected to remain at about 12¼% of the workforce, in Europe as a whole unemployment is

expected to rise from 16M in 1982 to 20M by the second half of 1984 i.e. about 12% of the labour force. A similar viewpoint on economic growth and unemployment was expressed by the National Institute Of Economic and Social Research in September 1984 (180). The fragile economic recovery is expected to splutter on, at least to the end of 1985 but it will barely dent the unemployment figures. In July 1984 the OECD extended their forecast of U.K. economic growth to 2% throughout 1985 (182).

The apparent contradiction of economic growth at the same time as continuing high unemployment was reviewed by M. Weaver, an industrial correspondent, in April 1984 (122); he claims that Ministers are puzzled by this. Economic advisers to the Engineering Employers Association (EEA) and the CBI are quoted as saying that productivity increases and a growing labour force are the explanation. The CBI's Economic Situation Report in January 1984 indicates that a vast majority of firms are investing primarily to increase efficiency rather than to expand capacity or just replace worn out machinery. Mr Thompson of the EEA is quoted as stating that in 10 or 15 years time manufacturing industry will employ only 40% of its present work-force. Supporting evidence for this statement comes from the 3% increase in engineering output in 1983 at the same time as employ - ment fell by 4%. Mr Weaver also quotes Mr R. Roberts, research secretary of the Association Of Independent Businesses, as saying that the present trend is to increase productivity rather than to recruit more workers. Business men exphasise how few they employ to achieve their targets rather than how many.

It is shown above that the unemployment situation has worsened considerably both since my research began, and since my surveys were carried out. Furthermore there are signs that the situation may deteriorate still more over the rest of the decade. For this reason I believe that the broad conclusions based on my calculations for 1981 will be just as pertinent when applied to the rest of the decade. A further factor not yet considered is the effect of the micro-chip on employment prospects.

THE EFFECT OF NEW TECHNOLOGY ON JOBS

Attention has been drawn previously to the fact that economic growth is being obtained through higher productivity rather than through a larger labour force. Much of this productivity increase stems from additional automation and the introduction of micro-electronics. Even the least technically minded of the population has heard of the micro-chip and its value in producing low cost computers. While most people do not understand how a micro-chip is constructed or how it works they do know at least some of the benefits that it promises.

Britain surprisingly has more home computers per capita than any other country although these are mainly used as sophisticated toys rather than for more serious matters such as educational studies, investment analysis, financial budgeting etc. Be that as it may, the "micros" are widely distributed, advertised,and reported on in the media. Many people recognise that word-processors will eventually become as widespread in the home as the old mechanical typewriters. Micro computers will facilitate shopping and the paying of bills via a combination of television and telephone. By calling up a shop a person will see on the screen the range of goods in stock and their prices; an order will be placed via the computer keyboard with direct debiting from a bank account. Cookers will be programmed to cook food to meet individual tastes, and washing machines will identify from the labels on garments the washing programme required or it may refuse to operate if the manually selected washing routine may damage the garment. Computer controlled fuel systems on cars can already ensure high performance with fuel economy, and soon there will be available a navigational system linked to a satellite that will show you where you are on a visual display map. The potential advantages of micro computers to the individual in private life are manifold and likewise employers see many advantages for their businesses.

M. Hellicar reports (123) that British Telecom expect that the new electronic telephone exchanges being introduced throughout the U.K. will only require 4% of the labour force needed for the system being replaced. Facsimile machines or word processors when connected to the telephone network will transmit letters, memos, purchase orders

quickly without the need for a postal service resulting in far less work for, and need for, postmen. Hellicar reveals that the top management of British Railway has discussed the idea of a fully computerised railway system which will operate without train drivers, guards or signalmen. A tiny computer fitted to the controls of each train will feed details of speed, position and route to a central computer which will co-ordinate all train movements to keep them on schedule and avoid collisions. These are but a few examples of possible changes in service industries.

Manufacturing industries will also benefit considerably. For instance (124) automation of small batch production is becoming economic due to the application of micro-processors. The new automated systems are easily switched from the manufacture of one product to another and back again because of their high flexibility; the cost of automation is thereby spread over a range of products. The manufacture of metal components can be achieved up to 10 times faster than by traditional methods. Most manually operated tools are out of action for about 85% of the time while being repaired or adjusted for the next job or waiting for the next shift of workers. Fully automated systems can rapidly change from one job to another and work all through a 24 hour day. Sales of these programmable, computer controlled machine tools, called numerically controlled (NC) machines increased 56% between 1979 and 1980. Further improvements in production can be obtained by computer-aided design (CAD). This allows designers to develop products on a visual display terminal and quickly introduce modifications with considerable saving in draughting time. Some performance assessments can also be carried out on the computer saving time by avoiding the need for some prototypes and engineering trials. It is also possible to produce the instructions for an NC machine directly from the computer used for CAD. Furthermore,a computer can calculate the sizes and quantities of materials needed to meet the requirements of the machine processes it has produced for the NC lathes, milling machines and grinders. In traditional factories purpose built conveyor systems have to be made to move equipment from one operational or assembly point to another. More modern factories employ robots which can be programmed for many types of movement and they can position a workpiece at different heights and angles. Besides presenting a workpiece to another machine for drilling or grinding, say, a robot's arms can

themselves operate tools and welding equipment. The versatility of robotics is widely recognised but has not yet been widely introduced into manufacturing industry.

Japan is the world leader in the use of robots and Y. Kuwahara, Senior Research Associate of the Japanese Institute Of Labour, (125), reports that about two-thirds of the world's industrial robots are believed to operate in Japan. Major industries where robots are increasing include cars, electric machinery, plastics moulding and metal working; these industries account for about 70% of all robots. Robots have been used in the manufacturing sector mainly for press-work, welding, processing machinery, painting, casting and forging. These workplaces have a bad reputation for being dangerous, noisey, very hot etc. Thus, they relieve human beings of particularly unpleasant work. On the other hand workers are being replaced also in the less onerous occupations. One example given was Fujitsu-Fanuc Ltd where the night shift consists of one employee, one guard and a set of robots producing more robots and NC machines in a silent, unlit factory. Kuwahara points to the increasing demand for the more sophisticated type of robot as their price falls. He quotes the result of a Nomura Research Institute survey which shows that sophisticated robots had fallen in price by one third over a few years. It is predicted that the cost-efficiency of these robots will soon make it uneconomic to employ human workers for many types of manufacturing work. The new technology has brought about great changes in the skill requirements of workers. Traditional skills of craftsmen are being replaced by machines or reduced to simpler skills. Some new skills have emerged such as programming ability and an understanding of complex machinery; these are more difficult for the older workers to acquire. Kuwahara writes that up to now robots have only replaced a marginal amount of the Japanese labour force and there has been no technological unemployment to any observable extent. However, he believes that the impact of the new technology will certainly be seen on a heretofore unseen scale in the coming decade and this will have an adverse effect on employment prospects for the labour force. A more recent report (126) shows that there are 14,200 robots working in Japanese factories. In the automotive industry about 7 workers are replaced by every 10 robots, or 14 workers per 2 shift day. Thus the 14,200 robots have replaced about 20,000 workers (1.4 x 14,200). No worker has visibly lost his job

due to a robot but about 20,000 new jobs have been lost. Fewer robots are shown to be employed elsewhere; the leading users are the USA 4,100, West Germany 1,420, Sweden 940, France 600 and the U.K. 370.

A 1984 article on the threat to jobs from robots (127) gives examples of modern technology, from the Selby coal mine in Yorkshire producing 4 times as much coal per miner as a conventional mine, to a robot barman in San Francisco that could mix 30 types of cocktail. With capital investment forecast to rise in real terms this year by 12% in the USA, 2% in the EEC and 1% in Japan, much of it is expected to go on computers and robots. Companies are coming out of the recession free of a bloated workforce and prepared to pay for new technology that will further cut their costs. The review claims that one robot can do the work of up to 6 men; in addition the cost of each man per hour is roughly 4 times that of a robot including depreciation and maintenance. The Unions are obviously worried that the economics of using robots will lead to the loss of jobs. If workers were Capitalists they would welcome inventions that cut costs and reduced employment but while income depends on wages it is in their immediate interests to resist technological change. The Economist article quotes the views of F. Foulkes and J. Hirsch in the Harvard Business Review, January-February 1984 who see conflict growing between employees and management as robots become smarter and threaten more jobs. Robots in the USA are predicted to increase six-fold by 1990. Foulkes and Hirsch suggest that employers will get more co-operation for the use of robots if they are used initially to do the most unpleasant jobs and workers are not laid-off but trained for new work or helped to find employment elsewhere. In contrast an OECD report (128) concludes that although the diffusion of robots will accelerate in the coming years it is wrong to exaggerate the overall consequences of robotisation on manufacturing and the number of jobs that will eventually disappear.

The Department Of Employment's Manpower Study Group on Micro-electronics published a report in 1980 (129) which considers the overall implications for jobs of developments in micro-electronics. The Study Group adopted a case study approach because they recognised that the overall impact on jobs depends more crucially

on the unforseeable economic climate than on the technological developments. They conclude that micro-electronics will be far more pervasive than almost any other historical example of technological change. It will affect many processes and products in the manufacturing sector as well as activities in the Service sector. The Study Group is optimistic that new jobs will be created to replace those lost by the introduction of the new technology. They point to evidence from the economic history of the entire industrial age to show that technological change has been beneficial to aggregate employment. This does not mean that there will be no unemployment amongst specific groups of workers whose skills are no longer required. The most spectacular employment effects have been seen in the production of telecommunications equipment, cash registers and televisions where components have been greatly reduced and are far easier to assemble. However a compensatory factor has been the invention of video recorders, word processors, computer games etc which have created many new jobs. The long term future of jobs in the electronics industry is good because the demand for their products has vastly increased and is continuing to grow.

The Micro-electronics Study Group also considered the employment effect of the greater use of NC machines in manufacturing, simplified control systems and the use of robots. All of these will place demands on the electronics industry but may cause job losses elsewhere. Robot construction will create jobs somewhere but there is little sign that much of this work is coming to Britain. In the Service Sector there is the possibility of the "electronic" or "paperless" office which will reduce the number of lower grade clerical jobs. Such an office was reviewed in the Economist in 1980 (130). All the equipment needed, such as word processors, facsimile transmitters, video conferencing equipment and computerised libraries, is already available. Their introduction has been delayed by the difficulty of linking together machines from different manufacturers and by operating procedures that are difficult for many workers; these constraints should disappear over the next few years. Much of the time now wasted on re-typing drafts, filing and searching for information, physical attendance at meetings etc could be saved, and consequently jobs lost, by operating an "electric" office. Furthermore, fully equipped executives could become home workers saving the employers

overhead costs and saving themselves the hassle of commuter travel.

The majority of low grade Service sector jobs that will be lost by the technological changes being introduced are occupied by women. This is shown by the Science Policy Research Unit, of the University of Sussex (131) who examined the effect of micro-electronics on women's jobs. The report shows that 22.5% of working women are employed in manufacturing, 71% are employed in Service Industries, and the remainder in other occupations. Of the total, 36% are clerical workers and particularly vulnerable to job loss; large reductions have been forecast but not yet achieved. Some reduction of jobs is forecast in the 4% engaged on assembly work in engineering and a further decline is expected in textile occupations, the printing industry and chemical process production. However, the numbers involved will be small in comparison to office worker job losses. Even so, an example is given of a 3K reduction in 7K jobs in a confectionery plant following a £125M investment programme. It is apparent from the report that the potential for a substantial loss of women's jobs exist but there is insufficient information to allow the numbers to be calculated. Without large capital investment there will be no significant effect and there is no clear indication of employers investment plans.

A conclusion drawn by the Micro-electronics Study Group (129) is that an absence of electronics expertise within a company is not an insuperable obstacle to micro-electronics innovation. A number of firms offer consultancy services that enable innovation to begin in Companies while their own staff are being trained or specialist staff are recruited. The introduction of micro-electronics appears to be sufficiently slow to allow job loss to be covered generally by natural wastage but of course opportunities for school leavers are being reduced. However, there will be a shortage of electronics engineers and technicians, and software workers unless improved training opportunities are provided.

A more exhaustive review of the literature on the employment implications of new technology has been carried out by V. Williams (132) but the conclusions reached are similar to my own. She states that it is essential for firms to adopt new technologies in order to

retain old markets and win new ones. Consequently changes in the pattern of employment associated with the introduction of such technologies must be regarded as unavoidable. While the new technologies offer prospects of greater prosperity their slower introduction than that of other industrialised nations will lead to a loss of competitiveness and jobs. A 1984 survey by the Policies Studies Institute is quoted to suggest that nearly 50% of British manufacturers are using or about to use micro-electronics compared with only 30% found in their 1981 survey. The earlier survey had found that the important benefits of the new technology are improved product performance and increased quality for firms introducing product applications, and improved control of production and more efficient use of labour in process applications. Job losses have been small in comparison with the effects of the recession but the penetration of the new technologies has been slow; future innovation is likely to be on a larger scale as investment increases. V. Williams refers to reports that claim 2 to 3 jobs are replaced by each NC machine and 2 to 5 jobs replaced by each robot. Growth in the robot population is predicted to displace between 10K and 50K workers by 1991; this is still small compared to the size of the current unemployment problem. However the total job loss due to micro-electronics could be between 240K and 400K by this date, of which 40K had been lost by mid 1982.

The V. Williams review also looks at the wider effects of the new technology. The demand for unskilled and semi-skilled labour will decline relative to the demand for other groups. Meanwhile the demand for highly skilled labour will increase. Future craft training will need to embrace a broader range of skills and the boundaries between technicians and craftsmen may become more blurred. She suggests that higher productivity from using the new technology will lower production costs and stimulate demand providing the advantage of lower costs are passed on to the consumer; this can also increase exports and decrease imports due to improved competivity provided competitors do not make similar use of the new technologies.

The Institute For Employment Research at Warwick University has carried out a study in 1981 that estimates a loss of 340K jobs by 1990 that will be offset by the creation of 420K new jobs. Thus a net gain in jobs is possible from the use of micro-electronics.

However, 34% of the new jobs is accounted for by a higher level of demand particularly for capital equipment. As Britain imports a substantial proportion of capital goods this tendency must be reversed to obtain this benefit from the new technologies. The trend is in the right direction because U.K. produced robots accounted for 34% of the new robot installations in 1983 compared to 23% the previous year. Nevertheless Britain was still lagging in 1983 with 1.75K robots while Japan had 16.5K, the USA 8K and W. Germany 4.8K. General Motors in the USA are alone spending £650M to install 14K on robots on its assembly lines by 1990 (133).

Earlier(p183)a brief mention was made to the possibility of the "electronic" office allowing more people to work from their homes. A study on new technology homeworking was carried out for the Equal Opportunities Commission in 1982 (134). The author, U. Huws, writes that one of the few propositions on which virtually all futurologists are agreed is the idea that in years to come more and more people will work from their homes. Micro-electronics makes it possible for a person, from the comfort of his home, to carry out a bewildering range of activities such as banking, information handling, environmental control, security control, business communication and, I add, design work, programming and even process control via a video link to the factory. An extension of homeworking will reduce the time and fuel wasted in transporting people between home and their place of work. The study concludes that employers find homeworkers are more productive and have lower overhead costs. The disadvantages are of less importance but supervision and monitoring are the most significant. However, I suggest that video links between the home and the work headquarters will overcome any difficulty in this respect and there are prospects that these will be readily available and relatively inexpensive in the not too distant future.

A detailed review in the Economist in 1981 (135) puts the effect of technological change on employment into perspective. It quotes a business man complaining that cheap imports are killing his business. He says that prices are so low that they are absurd. This is not a Lancashire mill-owner at any time since 1880, a Pennsylvania steel producer since 1960 or a Swedish ship builder of the 1970s. It is a Hong Kong shirtmaker in 1980 seeing his

export markets being lost to other South-East Asian countries. In his eyes textiles have become a declining industry as it has been for decades in Western Europe and the USA. This transfer of production to the less developed countries is mentioned earlier (p176) Countries entering, for them, a new industrial field normally do so with the latest equipment which gives them a technological advantage over the established producers. When coupled with lower wages it is no surpise that export markets have been lost by the industrialised nations. European and American steelmen consider they are in a declining industry yet consumption of steel increased by 25% during the 1970s. However, the traditional producers did not gain from the increase because the new producers greatly increased their share of the total production. Workers reluctance to increase productivity by new technologies does not protect jobs, it only transfers jobs to workers elsewhere. The Luddite mentality was one factor that prevented Britain from keeping up with technology in its basic industries and led to its 20th Century industrial problems.

The Economist review points to the loss of 290K textile jobs in Europe between the two World Wars due to the loss of export markets rather than due to imported goods. Increased productivity in the European motor industry by the use of robots is not increasing output but only enabling producers to maintain their share of a nearly saturated home market against low cost competitors. The cost per hour to run a robot can be about one third of the cost of employing a worker on the assembly lines; therefore replacement of human beings by robots is inevitable on purely economic grounds. In spite of technological innovation in the coal mining industry there should not be a great loss of jobs. With high oil prices and a rising demand for energy the long term future for miners is secure. Of course, some miners may have to move to other pits from those that are no longer economically viable. The general view is that apart from the electronics industry the opportunity for jobs in manufacturing is poor. In contrast further increase in some service sector jobs is possible. It is noted that as people became richer they do not spend proportionally more on manufactured items but spending on services increases e.g. on holidays, entertainment and education. Of course, the effect of

technological change on service sector jobs discussed earlier will counterbalance to some extent the increased demand for some services.

While the review does not paint an optimistic view of job opportunities for the future the impression given is not too pessimistic either. My conclusion from studying this review and the previous papers is that technological changes will not make large changes to the number of unemployed over the next few years. In the longer term many jobs will probably be lost as micro-electronics penetrate into most walks of life. It appears unlikely that the demand for goods and services will increase at a greater rate than productivity, therefore a net loss of jobs is inevitable.

THE VIEWS OF THE T U C

In 1979 the TUC declared that the stage was set for a significant reduction in working time both in the UK and throughout Europe. Resolutions of both the TUC and the European Trade Union Confederation have focussed on this issue. Reducing working hours was a central aspect of the TUC Campaign for Economic and Social Advance.

As part of this campaign the General Council of the TUC agreed to build up a databank of agreements containing clauses related to reductions in working time. Regular progress reports were to be issued on developments on working hours in this country and Europe. There have been 10 reports between November 1979 and July 1983 and these provide the main basis of this assessment of the TUC campaign. During this period about 250 agreements were reported on reduced weekly basic working hours and a similar number of agreements on increased holidays.

The TUC support the European TUC programme of action adopted in May 1979 which calls for a 10% reduction in working time without loss of pay. Specific targets are a reduction in the working week to 35 hours, an extension of annual holidays to 6 weeks and the right to retirement on full pension at 60 years of age for men as well as women.

Although there is deep concern at the persistence of high levels of unemployment this is not the only factor influencing the decision to fight for reduced working hours. The need to share out equitably the fruits of economic progress is at least of equal importance. Thus the TUC does not see hours reductions in the negative sense of sharing out less work, but in the positive context of growth and development.

The Employers' attitudes to reduced working hours are that these will increase costs and reduce competitiveness leading to increased unemployment. This viewpoint is vigorously attacked by the TUC who argue that the direct effect of reduced hours could be counter-balanced by improved efficiency. They claim that the tedium and strain of long hours has significant adverse effects on morale, performance and absenteeism. Furthermore higher efficiency is possible in many instances by restructuring the pattern of work and pay to reduce overtime; this can be reinforced by replacement of outdated machinery. Shorter working hours will focus attention on means of making better use of resources in the time available. They also argue that technological change will be welcomed rather than resisted if its outcome is seen as reduced working hours rather than fewer jobs.

In 1979 attention was drawn by the TUC to the paradox of about 1.3M people unemployed while many worked up to 10 overtime hours per week. The Department Of Employment was cited as calculating that the total hours of overtime worked in the UK was equivalent to the hours of work lost through unemployment. Of course there would be immense practical difficulties in trying to convert reduced overtime hours into jobs but the TUC has made overtime reduction an integral part of its campaign. In 1983 Unions were still being encouraged by the TUC to reduce overtime but now the hours lost by unemployment greatly exceeded the total overtime worked. In a pamphlet (137) issued by the TUC in 1981, guidelines are laid down for negotiations with employers on shorter working hours. Unions are asked to limit strictly the total hours worked by each person over a given period and to ensure that time-off-in-lieu instead of money is given for work done above the agreed overtime limit. Premium payments for approved overtime are to be maintained to

discourage employers from using overtime as a cheap form of labour i.e. avoiding the expense of taking on additional staff. Regular overtime is to be reduced over a period of years to allow increases in basic pay to maintain workers' standard of living. Of all the options for reducing working hours one would have expected the TUC to have had the greatest impact on overtime hours because employers could not insist on overtime being worked; the choice rested with Union members. However, the campaign has had little overall effect although a number of negotiated agreements on overtime have been reported in the Progress Reports. The average overtime worked per operative in manufacturing industry in 1977 was 8.7 hours / week; this was unchanged in August 1983 but the recession had reduced the total number working overtime from 1.8M to 1.1M (138).

Little progress has been made towards the target of 35 hours per week although the TUC quotes the Department Of Employment New Earnings Survey to show a downward trend in basic working hours; the average for manual men dropped from 39.9 in 1979 to 39.4 in April 1982. Average basic hours for non-manual men have fallen even less but they reached 37 hours in April 1982. However, the vast majority of workers now have basic hours below 40.

The Unions have had greater success in moving towards the target of six weeks holiday. In 1979 only 23% of manual men had 4 weeks holiday or more a year but by 1982 this had increased to 87%. An average of 5 weeks holiday is now becoming a generally attainable target.

So far, early retirement has been less of an option to negotiators because of the undesirability of retiring people into poverty on a very low pension. This applies particularly to manual workers who are less likely to have the benefit of a worthwhile occupational pension.

Even though the TUC campaign for reduced working hours in the UK has made a little progress, UK working hours still remain somewhat higher than in most European Countries. This is because pressure has been put also on employers and governments in Europe to reduce unemployment by a reduction in working time; this has maintained the differential. Most European countries have introduced

legislation limiting maximum working hours, giving a minimum annual holiday entitlement, and encouraging earlier retirement. Examples of progress in some of these countries are as follows :-

a) Belgium has over 70% of its workers working less than 40 hours/week and 45% working less than 38 hours/week. No more than 5 hours overtime can be worked in any week.

b) France now has a general working week of 39 hours or less; gas and electricity workers dropping to 35 hours/week in 1985. The standard annual holiday entitlement is now 5 weeks but some qualify for more. Early retirement is actively encouraged and 70% of normal pension is allowed until the normal retirement age of 60 is reached.

c) Holland has national agreements to cut working hours by 10%, between 1983 and 1987 provided steps are taken to contain labour cost increases. Annual leave averages 5 weeks with additions for those over 55 years old. Early retirement provision has been made for those who are 60 years old and above.

d) West Germany has 80% of its workers with a leave entitlement of 5 weeks or more; 38% having 6 or more weeks. Retirement is generally at 63 but it is lower in many industries. IG Metall, the metal workers union led a campaign to reduce working hours in the engineering industry to 35 hours/week. After strikes lasting six weeks they obtained a reduction to a $38\frac{1}{2}$ hour week in June 1984.

e) Sweden has a 5 week minimum holiday allowance with some getting up to 8 weeks. At 60, early retirement is allowed on a reduced pension or else weekly hours can be cut by 5.

These examples show that the UK is not taking the lead in reducing working time and refutes the argument of employers that lower hours will reduce our competitiveness. Similar trends to reduce working hours in all industrialised countries will have no effect on the balance of trade between them. Only the under-developed or third World Countries may benefit by a general reduction of working hours by the main industrialised nations. As mentioned previously it is arguable that this indirect help to the poorer nations will be more acceptable to them than direct subsidies or grants. In this way the quality of life of poorer nations will be improved by strengthening their industrial base at the expense of further growth in, say, the Western World and Japan.

In 1981 the TUC produced a consultative document (139) to reinforce their campaign for a 35 hour working week, extension of annual holidays to 6 weeks and early retirement at 60. While this is believed to be a means of reducing unemployment, unemployment is not a necessary precursor for the reductions in working time. Increased leisure can be offered in place of increased income as an alternative option for improving the quality of life.

The TUC also proposes a major Public Sector investment programme, a strengthening of the social services, and re-equipment of British Industry in a £6B boost to the economy. They reiterate that there is still too much overtime and estimate that all hours worked over 40 per week are equivalent to 200K full-time jobs in manufacturing industry and 600K in the Nation as a whole. The TUC note that overtime is used for a multitude of reasons and tends to become systemmatic or institutionalised in that it continues to be used when the original reason for its use has gone. They advocate a limit on overtime by making its cost too high, or, by giving time in lieu or by negotiating maximum levels etc. The TUC view is that overtime is used by employers because it is more flexible than hiring and firing and it avoids new employee costs (eg National Insurance), it reduces capital outlay, it fills gaps due to sickness and absenteeism, it helps to meet peak demands and it helps to build up low basic pay to a reasonable level. On the other hand overtime causes workers to work longer hours than necessary to do a job and their health, morale and performance suffer. The document continues by making the important point, supported by my own research, that negotiators should ensure that reductions in working time reflect the preferences of particular groups of workers between basic hours, holidays and earlier retirement.

THE C B I POSITION

A CBI view (140) produced a little before the date of the 1981 TUC Consultative document is that there is great uncertainty regarding the scale of the unemployment problem and the ability of the UK to deal with it. Much will depend on the international competitiveness of Britain's trade and industry. In the short term the CBI believe this would almost certainly require action that actually

increases unemployment as manning levels are reduced or the incidence of tax and public expenditure shifted. However, employers and managers should show that they are aware of employees' concern about jobs and they should be prepared to make a constructive contribution towards a solution of the unemployment problem.

In their review they concede that a growing labour force, new technology, fiercer competition in world trade, and the UK's relatively poor economic record in the last decade, all point to high unemployment levels. They do not predict the scale of future unemployment because so many uncertain factors apply. The one aspect on which they are certain is that the pace of change and adaptation is likely to increase. Firms will close down, some sectors will diminish in size but other firms will start up and some sectors will expand. It will be necessary to assist people to find work, to improve labour mobility, and to retrain. Even if this is done the CBI reckon that there will be a residual unemployment minimum of about 0.75M. This will be made up by 0.25M not working due to long term bad health, 0.3M short-term unemployed "between jobs", and 0.2M resulting from geographical or occupational mismatch. The document continues by stating that the impact of micro-electronic technology will be revolutionary particularly in the Service industries and in process and routine assembly work. However, they make no estimate of whether job creation will be balanced by job losses.

The CBI philosophy for dealing with the unemployment problem is to create jobs by increasing demand for UK industrial products. This will come about from new industries and a productivity in old industries greater than our competitors. I believe that this is a parochial attitude because it only transfers unemployment from one country to another unless there exists an insatiable demand for more goods. The alternative philosophy of limiting growth but sharing unemployment in the form of increased leisure for the workforce is also considered. Unemployment sharing and work-sharing are synonymous in this respect.

The two worksharing options mentioned are workforce reduction by early retirement or extra education, and reduction of the time

worked by employees. They suggest that the former is the prerogative of the Government while the latter is for negotiation between employers and unions. The CBI believe that the long term trend towards shorter working time will continue but this will have little effect on unemployment. An accelerated short-term reduction in working hours they believe would be counter productive. The usual reasons are given of higher labour costs, increased overtime becoming necessary, encouragement of "moonlighting" etc.

With regards to earlier retirement the CBI say that it may be too expensive and propose instead flexible retirement for both men and women between, say, 62 and 70 years of age. Although early retirement in some form will remove skilled and experienced people from the workforce and may give problems with pension payments, the CBI believe that the State retirement age requires early examination by the Government. There is no support for additional compulsory education to remove people from the workforce but the availability of voluntary vocational courses and improved transition from school to work is favoured.

The CBI consider that a reduction in the normal working week falls down on two basic criteria; if it is effective in creating new jobs it will add to costs and be impracticable to reverse. They are more in favour of reduced "systemmatic" overtime, as opposed to "peak-load" overtime but point to the lip-service paid to the idea by the unions and the employed. Even if overtime is reduced they cannot see how it can be conveniently grouped to provide new jobs. The CBI also query whether longer holidays will reduce unemployment, presumably for similar reasons, i.e. how to convert the time saved into new jobs. Of course, a possible answer to these problems has been put forward in my proposals for a 4 day working week (p.153).

At the CBI conference in 1982 at Eastbourne (141) six key strategic proposals were made to increase jobs by 1.5M but since then unemployment has increased by 0.4M. Be that as it may, two of the proposals are to share out jobs between more people without raising business costs and to reduce the labour force by giving additional training for school leavers and by voluntary early retirement. At the equivalent conference in 1983 (142) conflicting

views were expressed regarding the effect of a 35 hour working week. In contrast to statements about loss of competitivity, A.Newell of F. International said that for 20 years her company has employed staff for 20 to 30 hours per week and it has been found that the first 20 hours of a 30 hour week are best in terms of value for money. J. Vickers of Benjamin R. Vickers urged the conference to consider the initiation of practical worksharing and work creation schemes amongst his proposals (143). He warns that "if those who believe in freedom can find no way to get on top of unemployment, sooner or later the chance will be taken by those who do not".

THE GOVERNMENT'S POSITION

From 1978 to 1984 the Government has followed the philosophy of relying on market forces to solve the nation's unemployment problems; unfortunately the reverse effect has been observed. As shown earlier (table 89), unemployment has more than doubled during this period. No radical proposals to cut unemployment have been introduced although the Government has tinkered with projects such as the Job Release Scheme and the Job Splitting Scheme. Neither of them have had much effect because of limited financial inducements and/or restrictive qualifying ages which have limited the number of applications. The Secretary of State for Employment stated in the House of Commons on 1 May 1984 that the total covered by the Job Release and the Job Splitting Schemes up to the end of March was 95K and 836 respectively at a cost of £64.7 M and £84 K.

Much money has been expended on training schemes of various kinds but the advantages are only transient because the participants still have to find a job at the end of each scheme. Nevertheless the unemployment figures look more respectable because of these schemes. For instance, in July 1983 there were about 52K on the Community Enterprise Programme and Community Programme, 8 K on Community Industry, 18 K on Training For Skills, 104 K on the Young Workers Scheme, 200 K on the Youth Opportunities Programme (YOP) and 9 K on the Youth Training Scheme (YTS); together with other schemes, 560 K people were involved although about 230 K of them were still eligible for unemployment benefit (144). The schemes improve the quality of the work force but no jobs are created. Those who have been on the YOP gained useful work experience which they believe helped them acquire

jobs. As the Economist reports in 1984, (150) the MSC is creating loads of artificial jobs at a high cost. The combined cost of just the YTS (replacing the YOP) and the Community Schemes is £1.2 B in financial year 1984/85 and is projected to rise to £1.75 B in 1986/7. Most of this could be saved if there is full employment.

The Government is aware of the importance of the micro-electronic revolution to our economic growth even if not to its effect on employment. The Alvey Directorate was set up in April 1983 and is a joint Government, academic and industrial research programme into advanced information technology and powerful computer systems. Its aim is to keep abreast of the Japanese and the Americans in the use of so-called fifth generation computer technology. A Financial Times report in 1984 (151) states that the Alvey Directorate has approved 4 major projects costing £35M as part of the £350M, 5 year programme. One of the 4 projects involving Racal covers the development of highly intelligent mobile terminals for route guidance and travel information for motorists, fault diagnosis for the electricity supply industry and a mobile electronic office. Another project led by the GEC Electrical Projects management team aims to produce a fully automated factory from design to finished production.

In December 1983 the Government and the TUC edged closer towards a new understanding on unemployment and new jobs (145) at a meeting of the NEDC. Even then Mr Lawson, the Chancellor, said that workers will have to be prepared to change employment more frequently and be prepared to take wage cuts to create more jobs. The TUC questioned whether a continued rundown in manufacturing industry jobs was inevitable and suggested that unemployment could reach 5M by the end of the decade without policy changes. The two parties found some common ground exists between them and it is encouraging to record that the Government say that working time must become more flexible and more experiments are needed together with new forms of employment contract.

Government officers in the Manpower Services Commission (MSC) brought no encouragement to their masters in the House of Commons in the Corporate Plan published in June 1984 (146). It put into perspective the Government's frustration, referred to earlier (p.178) about the failure of the unemployment figures to fall when there

is once again economic growth. The plan concludes that large reductions in unemployment are unlikely even in the long-term. The MSC is particularly pessimistic about the prospects for the long-term unemployed; the number of people who have been claiming benefits for 12 months or longer rose from 375K in 1981 to more than 1M in 1983.

In spite of the clear signs that special measures are necessary by the Government to make appreciable inroads into the unemployment figures, the Government is still against a reduction in working hours. T. King, the Employment Secretary, is opposed to the EEC Commissions' proposals to reduce working hours (147). The Commission has suggested that each member nation should voluntarily set annual targets for reducing working time. However, when talking to the NEDC, Mr King accepted that hours of work are likely to fall somewhat but in the form of longer holidays rather than by shorter hours per day (174).

F. Pym, MP, a leading exponent of alternative more moderate Conservative policy, realises that past policies are inadequate for today's unemployment situation. In a speech in 1982 (148) he says that we have to find ways of coping with and living with much higher levels of unemployment than we have been used to at any time in our history. He adds that we need to look at the implications of so enormous a change and think about how society can best adjust to it. In 1984 F. Pym (155) obliquely criticises the Government for perpetuating social hardships in its drive for economic efficiency; when would this end? He says that there will always be a demand for greater economic success and this could lead us to profound social problems and great bitterness in the nation. Ending the divide between the "haves" and "have nots" is as important as economic success.

Robbie Gilbert leads research at the Institute Of Economics and Statistics, Oxford, into employment in the 1990s. He quotes the Chancellor Of The Exchequer, Nigel Lawson as saying in 1984 "many of the jobs of the future will be in labour-intensive service industries". The optimism of this Government spokesman, that expanding Service industries will make inroads into the unemployment figures, is not shared by R. Gilbert (183). He demonstrates

that little of increasing real incomes is going into a demand for Services, in contrast to conventional theory. Instead, more manufactured goods, often foreign, are being bought to replace Service functions. Higher efficiency in some Service areas is reducing staff numbers even where demand has increased; new jobs, he says, should come "from public spending on needs we cannot forever postpone - to rebuild our ageing roads, restore our railways, replace our collapsing sewers etc".

At the present time, 1984, the Government is not prepared to introduce radical measures to reduce unemployment, preferring instead to adopt a Laissez-faire approach. The CBI has supported this approach although there are now signs that some employers are becoming very concerned at the threat to society of permanently high unemployment. The TUC has advocated special measures to share work since the recession became established but apparently with little effect on either the employers or the Government. It may be that their arguments have over emphasised cuts in working time without proposing specific methods of doing so with the least effect on the economic health of the nation. The conclusions based on my research, given earlier, on the 4 day week and early retirement could possibly form a basis for such methods.

CONCLUSIONS ON RECENT EVENTS

I have shown that since my research began the employment situation has worsened considerably and the future outlook is not encouraging (ps 168 to 178). The major threat to jobs of the new technologies has been examined (ps 179 to 188), and it appears that while some new jobs may be created a great number of jobs will be lost from the older industries. While one cannot obtain a reliable estimate of the effect of new technology on jobs it is not expected to improve the unemployment situation. It has also been shown that little has been achieved by the TUC, the CBI or the Government to reduce unemployment although some of the job creation schemes have temporarily masked an even worse situation. The TUC realises that by maintaining a 39 hour week there will not be a return to full employment but the CBI and the Government are still waiting for a miracle to happen - a return to the industrial boom in Britain

following the second world war. From all evidence examined I believe that the conclusions based on my surveys in 1981/82 are at least as relevant today, in 1984.

FUTURE POLICY - RECENT VIEWS

To support further my contention that the time is ripe for a new strategy to combat the problem of unemployment I have drawn upon the views of a few leading writers in this field.

The Wealth Of Information

In his 1983 review of the changing nature of employment and the future outlook (39), Prof. Stonier traces the historical movement of workers from primary occupations, to secondary and then to tertiary, service industries and more particularly the information industries.

He covers in detail those factors affecting employment that are reviewed earlier in my paper - improved technology, foreign competition etc. Stonier looks at six strategies to improve employment prospects. He dismisses the "work harder response" as only partly the answer because low productivity in the UK is at least as much due to poor management. A Luddite response to save jobs, a second option, is only rational provided all other competitors follow suit but in the real world it will lead to the decline and collapse of a company not accepting new technology. Even if it is possible internationally to stop the introduction of micro-electronics, robots etc it will not be really helpful to global society as a whole.

A third strategy is protectionism but this is akin to the Luddite response. Stonier gives as an example Britain's imposition of import controls on Indonesian blouses, trousers and woven shirts. A few months later Indonesia responded leading to a potential loss of £500M in exports. Thus job loss was just transferred from one industry to another and the community as a whole suffered from low productivity. However, he favours protectionism for young emerging industries; this allows them to become established and the labour force to be educated in the new technologies. Protectionism in

dying industries is strongly criticised.

Fourthly, there is the laissez-faire policy for which there is some justification in the long run. However, it is much too risky to allow millions of unemployed to build up while waiting for things to sort themselves out. Fifthly there is monetarism which decreases inflation and taxation and squeezes out non-competitive industries. By restricting the supply of money it increases its value but reduces investment, and in consequence the source of new jobs. Furthermore, the cost of maintaining the unemployed for many years whilst foregoing their productive capacity makes it an expensive solution. The sixth solution, the Keynesian approach, creates jobs using public money. This is fine when jobs are productive, economically or socially, but not if they are just a means of keeping people off the streets. He quotes the De Lorean episode In Belfast which cost £67M to create only 2000 jobs i.e. £33,500 per job in an industry already embarrassed by over capacity.

Professor Stonier proposes two solutions that can be introduced in parallel. One is the development of high technology industries so that Britain becomes a post-industrial, technical-managerial consultancy and information provider e.g. exporters of chemical plant, hospitals etc and the provision of services such as education, banking, insurance etc. The second solution he advocates is work-sharing, in particular by a systematic reduction of the working week. He argues that between the industrial revolution and the present day the working week has been effactively cut in half and he predicts a similar reduction in the next 35 years i.e. a 10% reduction each 5 years. He suggests that there should be a 36 hour week in 1985 falling to about 21 hours in the year 2010. The Government could engineer this without loss of trade competivity by negotiating a universal hours reduction just like other international trade agreements.

Two further suggestions he makes are that the unpleasant jobs of society are given to teenagers who will know that it is only for a relatively short time with better jobs to follow. He considers also that in future, income may not be related to occupation and a living wage may be paid to all irrespective of their employment.

Ideas that may seem to be impractical to most people today may well be acceptable in future years.

The Collapse Of Work

In 1979 C. Jenkins and B. Sherman of the Association Of Scientific, Technical And Managerial Staffs produced their book on the future of work (153). They quote a prediction of D. Basnett in 1978, then President of the TUC, that by 1985 a combination of technology and the world economic recession will destroy jobs faster than they are being created; he has been proved correct as shown earlier in this paper.

The authors further quote the Prime Minister at the 1978 Labour Party Conference as saying that the Labour Party will harness the technological developments to produce cheaper and better goods, generate extra demand and thereby build extra jobs. They query whether this is possible, easy or indeed necessary. They ask if our attitudes to work should change as the technological revolution sweeps on i.e. do we work to live or live to work. Furthermore, is it not ludicrous to slave away week after week, year after year and only have a large block of leisure time at precisely the time when we need it least and can use it least - at retirement. "What is so special about work, especially if it is no longer necessary, that we make such a fetish of it". They quote a Haiitian proverb to support their view "If work is a good thing the rich would have found a way of keeping it all for themselves". Economists beliefs, that employees work until the monetary reward is sufficient and then they trade off work for leisure, are criticised on the grounds that few people in practise have an opportunity to make this choice.

The authors believe that the full employment of the 1950s and 1960s was an aberration due to external finance, post-war rebuilding and the cold war, and that we are now reverting to form. Several estimates of unemployment growth in the 1980s are examined ranging from 3.3M to 6.8M. One factor leading to high unemployment is micro-electronics and robots. The value of robots is well understood and they quote the case of 3 robots replacing 10 men on a 2 shift system in a car factory. While robots do not strike or

need a rest they pointedly mention that they do not buy cars either. In general, continual reduction of the working population will reduce the demand for goods unless income can be distributed to maintain the quality of life for all. The authors are convinced that if goods and services can be provided to satisfy people to at least today's standards by employing fewer people then it is better to give more leisure to the workers than to spread out the work or accept high unemployment.

C. Jenkins and B. Sherman do not regard the TUC policy of a 35 hour week as any more than an initial move to combat unemployment; a more imaginative, fundamental approach to lifetime working is needed. A change in working hours should seek to reduce the number of trips to work each month e.g. a 4 day week, a 3 week month or longer holidays. Even one year off in a lifetime would only add 2½% to labour costs so 4 such sabbaticals would not be unreasonable. If the authors' projection of unemployment levels is correct a method of job sharing must be adopted by the year 2000 to give the equivalent of a working week of 3, 8 hour days. An even more radical long-term proposal is that work and income should be divorced, i.e. everyone should get a living wage and only those wishing to work should do it. Some job creation schemes are also considered and the suggestion offered that no one solution would be adequate; a mixture of job creation and worksharing schemes may be required.

The authors ask if people want more goods, longer lives, better health etc. These questions are unanswerable except in vague generalities and yet they are of central importance; politicians impose their own value judgments on the answers and run countries accordingly. It was the same realisation that people should have more say in the structure of their lives that led to my surveys.

A key point made by C. Jenkins and B. Sherman is that it is wrong for Britain to have high levels of unemployment and under-used industrial capacity when so many do not have adequate homes, consumer durables, etc. Work should be provided to meet these demands and improved health, education, social services etc. Higher productivity should provide these rather than produce more unemployed.

Retirement Policy - The Next 50 Years

A comprehensive review of retirement policy was carried out at a conference organised by the Policy Studies Institute in 1981; also involved were the National Institute Of Economic and Social Affairs and the Royal Institute Of International Affairs. A book based on the conference contained contributions from a number of specialists on retirement and an overview by the editor, M. Fogarty (154). A distillation of the various viewpoints is given below.

Inflation-proofed State Basic Pensions and Earnings Related Pensions (ERP) together with the growth of Occupational Pension Schemes and personal assets could lead to pensioners having a much higher percentage of their working incomes in future years. J. Ermisch estimates that during the next 20 years the ERP would have limited impact on the economic position of the elderly but home ownership and occupational schemes will increase resources significantly; there already exists a number of schemes for obtaining income from mortgages on property. When the ERP scheme reaches maturity in about 45 years most people will have 75% or more of their working income on retirement and about a half may have 90%. He suggests that a less favourable maturity value to help people in the shorter term is a better use of resources. He proposes that workers should not lose some pension value due to a change of occupations i.e. pension rights should be truly portable, old pensioners should not receive less than new pensioners, the self-employed should receive adequate pensions, and the difference between the pension and pension age of men and women should be rationalised.

R. M. Altermann and A.B. Atkinson want increased opportunities for the old to remain at work because not all workers want many years of leisure. This is a growing problem because people are reaching pension age healthier, and the number of over 75s is increasing; there is a great demand from them for part-time work. In contrast the writers accept that some people would prefer to retire earlier than at present and they calculate that optional retirement at 60 for men would not be as costly as it at first appears; this I found also(p136).The changing patterns of work that are evolving could result in more changes of job and additional periods of

education and training between jobs; this would complicate pension contributions and returns.

R. Hemming and J. Kay write that there are about 100K Occupational Pension Schemes in Britain with over 11.5M members at work and 3.5M retired. This represents nearly 50% of the workforce and 50% of the retired. There has been criticism of indexed pensions in the Public Sector but some protection of pensions has been given in the Private Sector as shown in table 94. Hemming and Kay consider that the economic burden of indexed pensions is precisely the burden imposed by unindexed pensions if there is no inflation. This is because the value of assets on which pension funds rely also increase with inflation. It follows that if pension funds cannot afford to provide indexed pensions then they cannot afford a fall in the inflation rate either. Thus, inflation is not, as often suggested, the enemy of pension funding.

Table 94. Pension Protection In The Private Sector

	Rules Provide For %	Actually Given %
No Indexation	80	40
3% / Annum Increase	20	10
$\frac{1}{2}$ of Inflation	-	25
$\frac{2}{3}$ of Inflation	-	20
Over $\frac{2}{3}$ of Inflation	-	5

Other views expressed at the PSI conference were that there should be a better basic state pension and no ERP; all workers getting a reasonable standard pension to cover basic living requirements and being given an opportunity to obtain a supplementary occupational pension to cover the extras that makes life more enjoyable. The logic of an occupational pension is questioned when many have to change their occupations and this number will probably grow. Another proposal is that pensions should be based on whole life earnings and, as a result, on contributions rather than earnings for a selected period, typically the last 3 years. This would prevent those getting an income rise in the last few years taking out of the pension fund more than their fair share of the scheme's assets. As indexation of pension to prices results in pensioners

fairing better than workers in a declining economy, it is suggested that pensions should be indexed to average earnings.

In his overview statement M. Fogarty questions whether workers who continue at work beyond the normal retirement age should receive an enhanced pension when it prevents younger people from working and increases the cost of unemployment benefits. He thinks that workers should be allowed to remain at work provided there is no pension increase for the extra years. He is concerned at the trend towards early retirement because of the high costs predicted beyond the year 2000 when those born in the post world war two population boom retire. Fogarty also recommends giving lower or later pensions to enable higher pensions to be given to the more elderly who are in greater need. However, he recognises that several of his proposals are affected by the unemployment prospects. Several participants in the Conference are quoted as being in favour of a non-contributory State Pension Scheme. It is suggested that adequate flat-rate pensions for all should come out of general taxes thereby reducing the number near poverty and reducing administration costs. Additional pension could be obtained through a supplementary scheme but not the current occupational schemes. An alternative was the French National Scheme which gives security whilst facilitating mobility betweem employers.

Chapter 7

Overall conclusions and policy recommendations

The summary of Professor Stonier's views (ps 199 to 201) is included primarily to indicate that there are weaknesses in many of the traditional strategies for reducing unemployment and to show that he sees job sharing as one of the policies the Government should encourage. It is left to Jenkins and Sherman (ps 201 to 202) to make the case for a new attitude to work and employment. They question the necessity of work for work's sake and they also advocate a reduction in working hours as one of the main policies to adopt. It is interesting to note that the very radical idea of the future divorce of income from work is put forward by all three writers. This is a measure of their belief that people will have to make a choice between having extra leisure or still more goods. When all the essential material requirements of people can be provided by them working for a small fraction of their waking hours, work will either have to be rationed or consumers persuaded to work for trivial or unnecessary possessions. In the former case it may be that those with a psychological need for work should be given a greater share of it but not to the economic disadvantage of those who can live satisfactorily with little or no formal employment.

The Fogarty review of retirement policies (ps 203 to 205) provides a useful backcloth to my conclusions and recommendations on retirement. I have shown that there is no single preferred age for retirement and a flexible retirement age is needed (p 125) The availability of an enhanced pension for extra years worked encourages people to remain at work(p97) which is a good policy when labour is short but difficult to justify at times of high unemployment. Nevertheless the elderly can do useful work (p113) and many wish to remain in employment(p100)particularly in part-time jobs (p118). The provision of more part-time jobs would be one way of providing gradual retirement(p94). Willingness to help the unemployed(p102)could be used to encourage people to retire early.

A prime conclusion of my research(p136)is that the introduction in 1981/82 of the option of retirement for all men of 60 years of age was likely to have provided jobs for about 600K people at an annual cost of £589M; this would have only amounted then to about 0.5% of the annual Public Expenditure. This would have been a cost effective method of reducing unemployment at that time but it would not by itself have overcome the large unemployment problem.

Neither the numbers of jobs nor the real cost of providing them has changed much since 1981 because the number of males between 60 and 65 has changed little and social security payments have kept roughly in line with inflation. Therefore, for men, voluntary early retirement at any time between 60 and 65 on the full basic State Pension remains a policy that is strongly supported by my research.

People continuing to work beyond the normal retirement ages of 65 and 60 for men and women respectively are effectively preventing younger people from working which some may regard as anti-social behaviour. However, my research (p118) shows that many people need to continue working beyond these ages for social or economic reasons. Therefore, I would not advocate compulsory retirement at the State Pension Age. On the other hand one must question whether workers should be encouraged to remain at work by enhancing pensions for each extra year worked. John Watson, MP, writing of possible changes to our retirement system (179) at a time of high unemployment, points out "the ludicrous situation in which pensions are increased by 7% for each year a man continues in a job after the age of 65". Possibly a stronger disincentive should be applied and those remaining at work should also continue to pay the usual National Insurance contributions in order to partly compensate for the cost of keeping another person unemployed. In fact there may even be grounds for those workers who continue beyond normal retirement age, at a time of high unemployment, actually paying higher contributions or another form of increased tax. This rate could be varied in any year according to the number of unemployed for whom the Government wishes to provide jobs. Similarly, to control the cost of the scheme legislation could ensure that no-one voluntarily retiring below 65 would be eligible for supplementary benefit before they reached 65 years of age unless they had medical grounds or there were other extenuating circumstances. The practice of some European countries not to give full pensions to those in paid employment could also be considered. As my research shows that there is a big demand for part-time work by the elderly, a half-pension could be payable to those working, say, half a normal working week. To remove sexual discrimination this scheme could now apply equally to men and women with all women gaining the right to remain at work to 65.

The payment of a part pension from the age of 60 for those who only want part-time work would encourage more people to undertake some of the part-time jobs provided by my second policy proposal, the introduction of the 4 day working week (p149). The potential of this proposal for providing many part-time jobs would meet the demand shown by my survey (p100) Altermann and Atkinson (p203) and many others in this thesis. My research also shows that the 10% reduction in hours coupled with this pattern of working would meet the requirement of workers for useful parcels of additional leisure and in a cost effective manner. 4 day week working should meet employees desire for holidays better than shorter working days or earlier retirement (p80) and could possibly be partly traded off against a real increase in wages (p84) because a leisure increase is preferred to extra income. The estimate that only 45% of workers wish to work less than 5 days per week (p94) is possibly low due to about 70% of my survey respondents not wanting to work long hours / day (p92). However a reduction of total hours by 10% to about 35 would avoid an overlong day and probably encourage more employees to accept 4 day week working (p.148).

As about 60% of respondents say they are willing to make a sacrifice for an improved weekend (p92), I believe that 4 working days each of nearly 9 hours would be acceptable to most workers. Similarly the advantage of having 3 days off work each week coupled with helping to provide jobs for many unemployed (p102) would probably increase acceptance of weekend working; even now over 50% are prepared to work on Saturdays (p89). About 40% of respondents in my survey consider it would be difficult to share their job with others (p.87) but examination of respondents comments (Appendix 7) leads to the conclusion that this percentage is probably inflated due to a lack of understanding of how job sharing would operate.

I calculate (p158) that the introduction of a 4 day working week, with 6 day operation of facilities can provide about 1.3M jobs at a cost of £5.2B per year. In addition, the increased competivity of industry from the new pattern of working together with increased demand for leisure services could lead to a further 1.3M jobs i.e. 2.6M overall. Combining the 600K from early retirement with the 2.6M from a 10% reduction in working hours and a 4 day week with six day operation of facilities results in a potential of just

over 3M jobs. While this is more than is required currently, 1984, to bring unemployment down to an acceptable level it may be inadequate for the 1990s. However, it would be difficult to introduce the necessary legislation and fully implement both schemes before the late 1980s.

There would be a relatively quick reduction of the unemployed from introducing retirement for all men from 60 years of age but a slower reduction from the introduction of the 4 day week because it would require a greater degree of planning. While the number that would be taken off the unemployment register by both schemes would have changed little between 1981 and 1984 the cost would have roughly increased by about 22% because wages and social security benefits have kept approximately in line with inflation. Thus, the previously calculated cost of the 600K jobs from early retirement would increase from £589M to about £718, i.e. about 0.2% of the Gross Domestic Product in 1984. Similarly the cost of the 2.6M jobs from the 10% reduction in hours and the 4 day week would increase from £5.2B to about £6.3B i.e. about 2% of the Gross Domestic Product. This leads to an average national cost of a job from early retirement of about £1200 / annum and from the 4 day week of about £2400 / annum. These costs could be absorbed by the expected economic growth over the next year or two (p.147). It is believed that these estimates of the potential number of jobs that might be created and the cost of providing them are a little pessimistic; as stated earlier (ps 158 & 159) no allowance has been made for the multiplier effect in industry, the increased profitability of firms in the manufacturing sector, economies in capital formation, and (p.196) savings of £1B on training schemes.

The general conclusion of my research is that sufficient evidence has been found to support the view that some form of job sharing is necessary in order to reduce unemployment to a level acceptable to society. This is independent of any reduction likely from job creation. There is support from the literature and my surveys for two job sharing proposals; one being voluntary early retirement for all from 60 with financial disincentives beyond 65, and the other being a special variant of the 4 day working week. The economic costs of the proposals are considered to be worth the overall gain in social benefits.

Chapter 8

Research recommendations

I believe that the evidence supporting the introduction of voluntary retirement for men from the age of 60 is sufficiently compelling not to need further research but much work needs to be done on the operation of a 4 day working week spread over 6 days. Suggested research areas are given below :

a) The views of employees should be obtained by interview, rather than questionnaire, on their attitude towards the concept of the 4 day week; this would need to be carried out on a sample representative of the UK population. It would be advantageous to acquaint potential respondents with detailed unbiased information regarding the advantages and disadvantages of this pattern of working before they are interviewed because many people would find it difficult to imagine all its implications. Advantages to mention would include the three days leisure per week with one day's less travel to work each week, about 4 hours less work per average basic working week, much lower unemployment, the availability of all facilities during their "weekend", and less crowding of leisure facilities due to the spread of leisure time throughout the week. Disadvantages to mention would be an extra hour on each working day, the possibility of some Saturday working and a smaller increase in real income to cover some of the cost of the cut in working hours.

b) The attitude of employers towards the concept of the 4 day week should be obtained from a good cross section of industry in a manner similar to that for employees. Advantages to mention will include 6 day operation of facilities, less need for systematic overtime working, smaller premises for the same output and trained cover available when an employee is ill. The disadvantages are 10% fewer hours per employee for the same pay but with some financial assistance from the Government for providing jobs to make up some of the working hour reduction costs, and the need to organise job sharing for most jobs.

c) The problem of job-sharing is worth a separate investigation. The objectives of this research are to identify those occupations where workers believe job sharing may be difficult and to devise and propose working arrangements to overcome the difficulties.

d) The 4 day week concept will create many half-time jobs unless, say, 12 working days are covered by three groups of workers each working 2 x 4 days with intervening days of leisure. i.e. for every 2 sets of full-time workers already employed in a factory another set of full-time workers could be recruited. Where half-time jobs are created they would be filled mainly by the unemployed and school leavers and it would be of value to assess their attitude towards this method of working. Would they, and other workers, want to have two different half-time jobs because of the variety they provide? Would employers be able to integrate many part-time workers into their organisational structure and working methods?

e) There is the need to research how the Government can transfer to industry some of the funds becoming available to it from people leaving the unemployment register and taking jobs created by the new pattern of working time, i.e.

a) Savings in unemployment benefits
b) National Insurance payments by employer and employee
c) Income tax payments by these employees.

Also to be transferred in the most beneficial way would be the National Cost of each job created as previously calculated (p.210) and which the Government would fund from normal taxation, aided by the expected increase in annual economic growth.

f) I have left to the last a possible repeat of my survey with the U.K. as the sampling frame. This project is given lower priority because I do not believe the findings of a repeat survey would radically change the recommendations for policy and research. It is, of course, possible that there are changes in preferences due to cultural and economic differences between the various geographical regions of the nation. However, I do not expect the changes to be so large, with regard to basic requirements for work, that they would overturn the conclusions drawn from my localised survey. Should this research be undertaken, some questions could be eliminated, i.e. those identified as being little or no value in the analysis of chapter 3. The simpler questionnaire would make it more suitable for use by interviewers, an essential requirement for a few of the questions as shown by my own work.

Appendix 1

Questionnaire for those who have not retired

Ref: EWHL / Q7

PUBLIC OPINION SURVEY on EMPLOYMENT, WORKING HOURS and LEISURE

Most people are unable to choose how many hours per week they work, how many days holiday they get per year, the age when they retire, etc., yet these factors have a large effect on the quality of their lives. Decisions on these important factors are made by the Government, the Trades Unions and the Employers without knowing the preferences of the public.

Enquiries at the Department of Employment, the Trades Unions Research Centre and the Confederation of British Industries revealed that no attempt had been made or was planned to be made to discover the views of the public on these issues. Therefore one of the aims of this survey is to obtain views on these matters which may be of value to policy makers. This study is particularly timely as workers may be offered additional leisure to reduce the rising unemployment figures.

I invite you to make your views known by completing the attached questionnaire. Some of the questions will require you to make a difficult choice that will need careful thought. Do your best to answer all the questions. If you are unsure still try to answer but mention your difficulty beside the question. Some details about yourself are needed to see how background influences choice; as a few of the questions are necessarily of a personal nature your identity is not required. Please return your completed form sealed in the envelope provided.

Difficulty in raising money for this survey has kept the number of questionnaires to a minimum. To avoid the loss of valuable copies please pass your copy to someone else if you decide against taking part. Thank you.

Ronald L.G. Keith.

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10.9.80.

CARD 1 (1)

FILE EK1 (2-4)

WORK and LEISURE QUESTIONNAIRE

Please put a ring around your answer number like this (3) or write your answer in the space provided.

First a few details are needed about yourself in order to be able to compare your views with those of others with a similar background.

SECTION A

1. Are you male or female?

Male 1 (5)
Female 2

2. Which of these age groups are you in?

16 - 19 ..... 1 (6)
20 - 24 2
25 - 34 3
35 - 44 4
45 - 54 5
55 - 59 6
60 - 64 7
65 or over 8

3. What is your marital status?

Single 1 (7)
Married 2
Separated, Widowed, Divorced ... 3

4. What is the highest educational qualification a) you and b) your husband/wife have gained. Choose the nearest equivalent where none strictly applies. (Ring one in each column if married).

	(a) Self	(b) Husband/Wife
No formal qualification	1 (8)	1 (9)
CSEs, RSAs, 1 or 2 GCE 'O' levels..	2	2
GCE 'O' level in 3 or more subjects	3	3
GCE 'A' level in 1 or more subjects	4	4
ONC, OND	5	5
HNC, HND	6	6
Teachers Certificate	7	7
University Degree	8	8
Other: Please write in the boxes below.....	9	9

5. Taking into consideration your commitments, how do you think your standard of living compares with the average person/family?

Well above average 1 (10)
A little above average 2
Average 3
A little below average 4
Well below average 5

6. How are you currently employed?

Paid employment 1 (11)
Self employed 2
Unemployed but previously in paid employment 3
Housewife not in paid employment..... 4
Unemployed and never in paid employment 5

Those in the last group should go straight to question 17.

SECTION B

This section is concerned with work and working conditions. I would like to build up as accurate a picture as possible about what you do at the present time to assess how this affects your preferences given in Section C.

Housewives not in paid employment should answer as best they can about their husbands job or his last job if unemployed.

Unemployed should answer as best they can about their last job.

7. In which industry are you employed?

Agriculture, forestry, mining, quarrying, fishing 1 (12)
Metal & Chemical production including oil, gas and coal products 2
Mechanical & electrical engineering products including vehicles and ships 3
Other manufacturing 4
Building / Civil engineering 5
Transport, communications 6
Distributive Trades 7
Insurance, banking, business services 8
Professional and Scientific Services 9
Public administration, Defence, Public Services (gas, water, electricity) 10
Miscellaneous, including entertainment (give details in the box below) 11

8. Which of these best describes your occupation?

Employer or Manager	1	(13)
Professional Worker	2	
Intermediate non-manual	3	
Junior non-manual	4	
Personal Service	5	
Foreman or Supervisor - manual	6	
Skilled Manual	7	
Semi-skilled Manual	8	
Unskilled Manual	9	
Others: please write in box below	10	

9. What is the basic number of hours you work per week in paid employment (not including overtime or meal breaks) ?

1 to 8 hours	1	(14)
9 to 16 "	2	
17 to 26 "	3	
27 to 30 "	4	
31 to 36 "	5	
37 to 38 "	6	
39 to 40 "	7	
41 to 42 "	8	
43 to 44 "	9	
45 to 49 "	10	
50 or more	11	

10. What is the average number of hours of overtime you work each week?

None	1	(15)
One	2	
Two	3	
Three	4	
Four	5	
Five	6	
Six	7	
Seven	8	
Eight or more	9	

11. Please show how frequently you work on each day of the week; ring one number for each day.

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Usually	1 (16)	1 (17)	1 (18)	1 (19)	1 (20)	1 (21)	1 (22)
Fairly Often	2	2	2	2	2	2	2
Occasionally	3	3	3	3	3	3	3
Never	4	4	4	4	4	4	4

12. How many days paid holiday do you get each year, (excluding weekends during your holiday and all Bank holidays) ? (23)

10 or less	1
11 - 15	2
16 - 20	3
21 - 25	4
26 - 30	5
Over 30	6

13. How much time do you spend on the combined journey to and from work each day? If it varies please try to give an average. (24)

Less than 20 minutes	1
20 - 39 minutes	2
40 - 59 minutes	3
1 hour - but less than 1½	4
1½ hours - but less than 2	5
2 hours - but less than 2½	6
2½ hours - but less than 3	7
3 hours - but less than 4	8
Over 4 hours	9

14. How much experience have you had of shift work in any job you have had, past or present? (25)

None or very little	1
About 3 months	2
About 6 months	3
About 1 year	4
About 1½ years	5
2 or more years	6

15. What is the earliest time you have often started work in any job? (26)

5.00 a.m. or earlier	1
5.30 "	2
6.00 "	3
6.30 "	4
7.00 "	5
7.30 "	6
8.00 "	7
8.30 "	8
9.00 " or later	9

16. What is the latest time you have often finished work in any job?

5.00 p.m.	1	(27)
5.30 "	2	
6.00 "	3	
6.30 "	4	
7.00 "	5	
7.30 "	6	
8.00 "	7	
8.30 "	8	
9.00 "	9	
10.00 "	10	
11.00 " or later	11	

SECTION C

Here is an opportunity to make your own views known on how you would choose from alternatives on work and leisure.

17. (i) It is expected that people will spend less time at work in future but get the same pay. If you were starting working life again which would you prefer?

½ an hour off each working day	1	(28)
An extra 15 days holiday each year....	2	
Retirement 2 years earlier	3	

(ii) Suppose a second amount of extra leisure was available, how would you choose to have this?

½ an hour off each working day	1	(29)
An extra 15 days holiday each year....	2	
Retirement 2 years earlier	3	

(iii) Suppose a third amount of extra leisure was available, how would you choose to have this?

½ an hour off each working day	1	(30)
An extra 15 days holiday each year....	2	
Retirement 2 years earlier	3	

18. If you could have either the extra leisure of question 17 or two weeks extra pay each year how would you choose each time?

(i) The first amount of extra leisure.	1	(31)
Two weeks extra pay each year.....	2	
(ii) The second amount of extra leisure	1	(32)
Two more weeks extra pay each year	2	
(iii) The third amount of extra leisure	1	(33)
Two further weeks extra pay each year	2	

19. How easy would it be for someone who has the required training to share your job with you; you working the first half of the week and the other person working for the second half?

Very easy	1	(34)
Easy	2	
Don't know	3	
Difficult	4	
Very difficult	5	
Impossible	6	

If difficult, very difficult or impossible, what makes you say that? Please write in the box below.

20. If you had more leisure time how would you like to use it? Ring one number in the first column to show your first choice of activity and ring numbers in the other columns to show your second, third and fourth choices.

	1st		2nd		3rd		4th	
Do-it-yourself	1	(35)	1	(36)	1	(37)	1	(38)
Travel (to country, seaside etc)	2		2		2		2	
Watching live sport	3		3		3		3	
Taking part in sport	4		4		4		4	
Hobbies including gardening	5		5		5		5	
Reading books, magazines etc	6		6		6		6	
Formal or informal study	7		7		7		7	
Watching television / listening to music	8		8		8		8	
Pubs and clubs	9		9		9		9	
Concerts, Theatres, Cinemas, etc	10		10		10		10	
Other (please write in box)	11		11		11		11	

1st choice
2nd choice
3rd choice
4th choice

21. Suppose you were asked to work every Saturday but you could have any weekday off in exchange, how would you reply? Please give your answers also to a request to work on Sundays and on both days together having weekdays off in exchange.

I would never work at weekends	1	(39)
I would be willing to work on Saturdays	2	
I would be willing to work on Sundays	3	
I would be willing to work on Saturdays and Sundays.....	4	

22. If you were not willing to work on a Saturday or Sunday please answer these questions.

(i) Why do you not want to work on this day or these days? Give your main or two main reasons for not wishing to work at weekends.

	On Saturday	On Sunday	On both Saturday and Sunday
I have young children home from school at the weekend.....	1 (40-41)	1 (42-43)	1 (44-45)
My religion does not allow it	2	2	2
I might miss some sport and social activities.....	3	3	3
I might meet friends and relations less often	4	4	4
Other reasons (please give in the box below)	5	5	5

Saturday	
Sunday	
Saturday plus Sunday	

(ii) What would be the minimum extra holiday each year you would require to make you change your mind?

	Saturday working	Sunday working	Saturday and Sunday working
1 week	1 (46)	1 (47)	1 (48)
2 weeks	2	2	2
3 weeks	3	3	3
I would probably never change my mind.....	4	4	4

23. If you could work longer hours per day to get extra holidays what is the maximum number of hours per day you would be willing to work? (Do not include meal breaks in your hours).

7½	1	(49)
8	2	
8½	3	
9	4	
9½	5	
10	6	
10½	7	
11 or more	8	

24. If transport was available and double pay was given for all time worked before 9.0 a.m. and after 5.0 p.m. what is the earliest start time and latest finish time you would accept?

(i) Earliest time to start work -

5.00 a.m. or earlier	1	(50)
5.30 "	2	
6.00 "	3	
6.30 "	4	
7.00 "	5	
7.30 "	6	
8.00 "	7	
8.30 "	8	
9.00 " or later	9	

Please note: The earlier you start the earlier you would finish; that is, your working day would remain at its present length.

(ii) Latest time to finish work -

5.00 p.m.	1	(51)
5.30 "	2	
6.00 "	3	
6.30 "	4	
7.00 "	5	
7.30 "	6	
8.00 "	7	
8.30 "	8	
9.00 "	9	
10.00 "	10	
11.00 " or later	11	

Please note: The later you finish the later you would start; that is, your working day would remain at its present length.

25. At weekends there are crowded roads, resorts, shops and leisure facilities while Banks, Local Government Offices and some other services are closed. If it were possible to remove all these inconveniences by everyone working a little longer each week, what is the maximum extra time you would be prepared to work each week?

It is not worth extra work....	1	(52)
½ hour	2	
1 hour	3	
1½ hours	4	
2 hours	5	
2½ hours	6	
3 hours	7	

26. Assume that you could choose how many hours per week you worked in your present job and that the pay <u>for each hour</u> worked was the same as at present.

(i) How many hours per week would you choose to work? (53)

1 to 8	1
9 to 16	2
17 to 26	3
27 to 30	4
31 to 36	5
37 to 38	6
39 to 40	7
41 to 42	8
43 to 44	9
45 to 49	10
50 or more	11

(ii) Over how many days would you want to spread your hours? (54)

One	1
Two	2
Three	3
Four	4
Five	5
Six	6

27. If you were given the choice of gradual retirement or the more usual sudden retirement what would you choose? (55)

Work normal hours until retirement	1
Work an hour or two less each day for a few years before retirement	2
Work a day less each week for a few years before retirement	3
Work half-time each week for a few years before retirement	4

28. (i) Assume that a pension was offered to you at 55 years of age and it was just sufficient to cover your basic needs; it would cover housing, food, fuel and clothes but there was not a lot left for things like holidays, cars, cigarettes and alcohol. If the same pension was given whatever age you retired, at what age would you choose to give up work? (56)

Age 55	1
Age 57	2
Age 59	3
Age 61	4
Age 63	5
Age 65	6
Age 67	7
Age 69	8
Age 71	9
Never wish to retire	10

(ii) If an extra £3 per week pension was given for every 2 years you stayed at work, at what age would you now choose to retire? (57)

Age 55	1
Age 57	2
Age 59	3
Age 61	4
Age 63	5
Age 65	6
Age 67	7
Age 69	8
Age 71	9
Never wish to retire	10

28. (iii) Which are the most important reasons for your choice of retirement age? (Ring as many answers as you wish).

I find work boring or unsatisfying	1	(58)
I would like more time for leisure activities	2	(59)
I find my work is tiring or a strain on my health	3	(60)
I consider extra leisure is more important than extra money	4	(61)
My work gives me a purpose and an interest in life	5	(62)
My work provides companionship	6	(63)
I want a high standard of living	7	(64)
I would need extra money to enjoy the extra leisure	8	(65)
Other reasons (please write in the box below)	9	(66)

29. If the Government held a referendum asking people to work one day less each month for one day's less pay in order to provide work for the unemployed, how would you answer?

Yes, in favour of it	1	(67)
No, against it	2	

30. Is there anything else that you would like to suggest about how working times etc should or might be changed? If you have any ideas, please describe them on the back of this questionnaire.

Please give the date you completed this questionnaire.

..... / ..... / .....

Thank you very much for your help.

Ronald L.G. Keith.
10.9.80.

Appendix 2

Questionnaire for the retired

Ref: EWHL / Q7R

PUBLIC OPINION SURVEY on EMPLOYMENT, WORKING HOURS and LEISURE

Most people are unable to choose how many hours per week they work, how many days holiday they get per year, the age when they retire, etc., yet these factors have a large effect on the quality of their lives. Decisions on these important factors are made by the Government, the Trades Unions and the Employers without knowing the preferences of the public.

As only retired people have experienced all these ways of gaining leisure your views are particularly important and these will be brought to the attention of policy makers. This study is particularly timely as workers may be offered additional leisure to reduce the rising unemployment figures.

I invite you to make your views known by completing the attached questionnaire. Some of the questions will require you to make a difficult choice that will need careful thought. Do your best to answer all the questions. If you are unsure still try to answer but mention your difficulty beside the question. Some details about yourself are needed to see how background influences choice; as a few of the questions are necessarily of a personal nature your identity is not required. Please return your completed form sealed in the envelope provided.

Difficulty in raising money for this survey has kept the number of questionnaires to a minimum. To avoid the loss of valuable copies please pass your copy to someone else if you decide against taking part. Thank you.

Ronald L. G. Keith.

Ronald L.G. Keith,
Research Student, Faculty of Social Sciences,
The Open University,
Walton Hall,
Milton Keynes, MK7 6AA.

CARD 1 (1)

FILE RK 2 (2 - 4)

WORK AND LEISURE QUESTIONNAIRE

Please put a ring around your answer like this (8) or write your answer in the space provided.

First a few details are needed about yourself in order to be able to compare your views with those of others with a similar background.

SECTION A

1. Are you male or female? (5)

Male	1
Female	2

2. Which of these age groups are you in? (6)

50 - 53	1
54 - 57	2
58 - 61	3
62 - 65	4
66 - 69	5
70 or over	6

3. What is your marital status? (7)

Single	1
Married	2
Separated, Widowed, Divorced	3

4. What is the highest education a) you and b) your husband / wife have gained. Choose the nearest equivalent where none strict applies. (Ring one in each column if married).

	(a) Self		(b) Husband / Wife	
No formal qualification	1	(8)	1	(9)
CSEs, RSAs, 1 or 2 GCE 'O' levels	2		2	
GCE 'O' level in 3 or more subjects	3		3	
GCE 'A' level in 1 or more subjects	4		4	
ONC, OND	5		5	
HNC, HND	6		6	
Teachers' Certificate	7		7	
University Degree	8		8	
Others: Please write in the boxes below.	9		9	

5. At what age did (a) you and (b) your husband/wife retire?

	(a) Self		(b) Husband/ Wife	
Retired at 55 years or less	1	(10)	1	(11)
Retired over 56 years and less than 58 years	2		2	
Retired over 58 years and less than 60 years	3		3	
Retired over 60 years and less than 62 years	4		4	
Retired over 62 years and less than 64 years	5		5	
Retired over 64 years and less than 65 years	6		6	
Retired over 65 years and less than 66 years	7		7	
Retired over 66 years and less than 68 years	8		8	
Retired over 68 years and less than 70 years	9		9	
Retired at 70 years or over	10		10	

6. How long have (a) you and (b) your husband/wife been retired?

	(a) Self		(b) Husband/ Wife	
Up to 1 year	1	(12)	1	(13
Over 1 year and less than 2 years	2		2	
Over 2 years and less than 3 years	3		3	
Over 3 years and less than 4 years	4		4	
Over 4 years and less than 5 years	5		5	
Over 5 years and less than 6 years	6		6	
Over 6 years.....	7		7	

7. Were you in paid employment in most of your years before you reached the usual retirement age?

Yes - I was in full-time employment.... 1 (14)
Yes - I was in part-time employment.... 2
No - I did little or no paid work..... 3

Those answering 'No' to question 7 should now go to question 13; others should continue from question 8.

8. In which industry were you mainly employed?

Agriculture, forestry, mining, quarrying, fishing	1	(15)
Metal & Chemical production including oil, gas and coal products	2	
Mechanical & electrical engineering products including vehicles and ships	3	
Other manufacturing	4	
Building / Civil engineering	5	
Transport, communications	6	
Distributive Trades	7	
Insurance, Banking, business services	8	
Professional and Scientific Services	9	
Public administration, Defence, Public Services (gas, water, electricity)	10	
Miscellaneous, including entertainment (give details in the box below)	11	

9. Which of these best describes your main occupation when you were employed?

(16)

Employer or Manager	1
Professional Worker	2
Intermediate non-manual	3
Junior non-manual	4
Personal Service	5
Foreman or Supervisor - manual	6
Skilled manual	7
Semi-skilled manual	8
Unskilled manual	9
Other: Please write in the box below.	10

10. How many hours did you work per week in your main job (not including meal breaks) ?

(17)

1 to 8 hours	1
9 to 16 hours	2
17 to 26 hours	3
27 to 30 hours	4
31 to 36 hours	5
37 to 38 hours	6
39 to 40 hours	7
41 to 42 hours	8
43 to 44 hours	9
45 to 49 hours	10
50 or more hours	11

11. How many days paid holiday did you get each year in your last main job (excluding weekends during your holidays and excluding public holidays) ?

(18)

5 or less	1
6 to 10	2
11 to 15	3
16 to 20	4
21 to 25	5
26 to 30	6
Over 30	7

12. How do you think your standard of living compares with other people living on pensions?

(19)

Well above average	1
A little above average	2
Average	3
A little below average	4
Well below average	5

SECTION B

Here is an opportunity to make your own views known on how you would choose from alternatives on work and leisure. Only retired people are able to compare the value of retirement leisure time with shorter working days and longer holidays.

13. (i) It is expected that people will spend less time at work in future. If you were starting working life again how would you like to be given the extra time?

½ an hour off each working day 1 (20)
An extra 15 days holiday each year 2
Retirement 2 years earlier 3

(ii) Suppose a second amount of extra leisure was available, how would you choose to have this?

½ an hour off each working day 1 (21)
An extra 15 days holiday each year 2
Retirement 2 years earlier 3

(iii) Suppose a third amount of extra leisure was available, how would you choose to have this?

½ an hour off each working day 1 (22)
An extra 15 days holiday each year 2
Retirement 2 years earlier 3

14. How do you use your time? Ring one number in the first column to show the activity that occupies the most time. Ring numbers in columns 2, 3 and 4 for the activities using the second, third and fourth most time.

	1st	2nd	3rd	4th
Do-it-yourself	1 (23)	1 (24)	1 (25)	1 (26)
Travel (to country, seaside etc)	2	2	2	2
Watching live sport	3	3	3	3
Taking part in sport	4	4	4	4
Hobbies including gardening	5	5	5	5
Reading books, magazines etc	6	6	6	6
Formal or informal study	7	7	7	7
Watching television / listening to music	8	8	8	8
Pubs and clubs	9	9	9	9
Concerts, theatres, cinemas etc	10	10	10	10
Other, (please write in box)	11	11	11	11

1st choice
2nd choice
3rd choice
4th choice

15. (i) Would you like a full or part-time job that either made use of your knowledge and experience or provided a change from your previous occupation?

No	1	(27)
Yes, 1 to 8 hours weekly	2	
Yes, 9 to 16 hours weekly	3	
Yes, 17 to 26 hours weekly	4	
Yes, 27 to 30 hours weekly	5	
Yes, 31 to 36 hours weekly	6	
Yes, 37 to 38 hours weekly	7	
Yes, 39 to 40 hours weekly	8	
Yes, 41 to 42 hours weekly	9	
Yes, 43 or more	10	

(ii) For those who said 'Yes' above, over how many days would you want to spread your hours?

One	1	(28)
Two	2	
Three	3	
Four	4	
Five	5	
Six	6	

16. (i) What are the most important reasons for your choice in question 15(i). For those who said 'No' choose one or two of these answers.

I do not need any more money	1	(29-30)
I do not wish to be tied to a regular job	2	
I can make good use of all my leisure time	3	
My health would not permit it	4	
I might not now be able to do the work satisfactorily	5	
Other reasons. (Please write in the box below)	6	

(ii) For those who said 'Yes' choose one or two of these answers.

I need more money for essentials	1	(31-32)
I need more money for luxuries	2	
I am bored with so much leisure time	3	
I could meet more people	4	
I would like to do something useful	5	
I would get more respect if I had a job	6	
Other reasons. (Please write in the box below)	7	

17. Do you think it is better to retire suddenly or retire gradually? Which of the following do you think is best?

Work normal hours until retirement	1	(33)
Work an hour or two less each day for a few years before retirement	2	
Work a day less each week for a few years before retirement	3	
Work half-time each week for a few years before retirement	4	

18. Did you retire gradually or suddenly?

Retired gradually	1	(34)
Retired suddenly	2	

19. (i) Assume that a pension had been available to you at 55 years of age and it was just sufficient to cover your basic needs, it would cover housing, food, fuel and clothes, but there was not a lot left for things like holidays, cars, cigarettes and alcohol. If the same pension was offered at whatever age you retired, at what age would you have chosen to give up work?

Age 55	1	(35)
Age 57	2	
Age 59	3	
Age 61	4	
Age 63	5	
Age 65	6	
Age 67	7	
Age 69	8	
Age 71	9	
Never wished to retire	10	

(ii) If an extra £3 per week pension was given for every extra 2 years you stayed at work, at what age would you now choose to retire?

Age 55	1	(36)
Age 57	2	
Age 59	3	
Age 61	4	
Age 63	5	
Age 65	6	
Age 67	7	
Age 69	8	
Age 71	9	
Never wished to retire	10	

20. Is there anything else that you wish to say about retirement, working hours, leisure etc. If you have any ideas, please describe them on the back of this questionnaire.

Please give the date you completed this questionnaire.

..... / ..... / .....

Thank you very much for your help.

Ronald L.G. Keith.

Appendix 3

Notice displayed in work places

UNEMPLOYMENT RESEARCH

Changes in working hours or retirement age may be introduced in the next few years to provide jobs for the unemployed. However, there is little known about which changes people would prefer.

Staff of a few organisations have an opportunity to make their views known by answering some questions anonymously and sending their answers to the Open University in a pre-paid envelope.

If you are willing to spend half an hour at home assisting this research please get a copy of the questions from

— — — — — — — — — — — —

I am grateful to your management and those answering the questions for helping with the unemployment problem.

Ronald L.G. Keith. The Open University.

Appendix 4

Notice displayed in sub-post offices

TO RETIRED PERSONS

Your help is needed for research into the unemployment problem.

If you will spare a little of your time to answer anonymously some questions on work and retirement please ask for a copy of the questions.

As there are not enough copies for everyone only take one if you really want to help.

THANK YOU.

Appendix 5

Selected views of retired respondents

The retired community contains many capable, articulate individuals who are still able to make a useful contribution to society. This is shown in the thesis (ps.113 & 119) and in my survey where 52 out of 147 respondents voluntarily commented on working hours or retirement. 10 representative examples of their views, summarised in several cases, are given below.

1. Cut out all overtime and share work on a 4 day week basis. Retirement at 60 is an ideal age but others should be allowed to retire as early as 55 on a reduced pension. If unemployment persists lower retirement ages further.
2. Have one year off work every 7 or 10 years. Use two thirds of the year for retraining and one third for a long vacation. Retirement has allowed me to try many new activities.
3. A great wealth of experience is wasted upon retirement. Many are still active and alert and able to be of use to society.
4. Men and women should have a choice of retirement age between 55 and 65 years. Retirement can be a traumatic change. Make opportunities for retired people to use their skill and knowledge for the community. Have special centres where the old can help the young especially with traditional skills.
5. Retirement is an occupation; prepare for it at least a year before leaving work. Come to terms with advancing years.
6. Join something 2 years before retirement to get to know more people.
7. People need something to keep them in touch with the world, such as part-time work or a hobby.
8. Retirement is the beginning of a new life of adventure and excitement.....a smaller income is not necessarily the tragedy it is made out to be. I loved my work and I love my life now. I think it is important to retire young enough to really fashion a good life out of one's new-found freedom. Classes should be held in leisure subjects and a big drive made to encourage people to participate to equip them for the transition from employment to retirement.
9. I've never been so happy. It 's important to know what you want to do when you cease employment, to be organised, not to waste time, to redirect your energies into what you want to do - something to produce fulfilment.
10. Retirement is an interesting, busy, wonderful time of life.

Appendix 6

Manpower and financial data

Table A. Cost And Manpower Data For 1981

Total Working Population	26.55 M	
" Employed	24.15 M	
" Self employed (included above)	2.3 M	
Unemployment Benefit	£1758 M	£3.81 B
Unemployment Supplementary Benefit	£2050 M	
Registered Unemployed Males	1.775M	2.40 M
" " Females	0.620M	

Average annual unemployment benefits per person = $\frac{£3.81B}{2.40M}$ = £1590 θ

θ This simplification assumes all the unemployed cost the same which is, of course, untrue. In February 1981 Department of Employment figures showed 940K received unemployment benefit only, 735K received supplementary benefit alone, 225K received both and 294K received nothing. The latter included new "signing ons" and those ineligible for benefits. However, the £1590 average per person remains a valid estimate of the average benefit.

Table B. Average Pay In 1981 After National Insurance And Tax Deductions

	Adult Male	Male Youth	Adult Female	Female Youth
Average Annual Pay	£7384	£3536	£4472	£2756
Average Tax + N.I.	£2064	£ 830	£1109	£ 557
Average Take Home Pay *	£5320	£2706	£3463	£2199
$\frac{\text{Pay after taxes}}{\text{Pay before taxes}}$ =	0.72	0.77	0.77	0.80

National weighted mean = 0.75

* These are approximate but adequate for calculating the broad effect of changes in working hours.

Source: CSO Annual Abstract Of Statistics 1984.

Table C. Breakdown Of Labour Costs In Different Industrial Sectors

	Pay + Holiday	N.I.	Welfare	Redundancy, Training etc.	Total Labour Cost
Manufacturing	82.1	9.0	5.2	3.7	100.0
Insurance, Banking	70.3	6.5	14.7	8.5	100.0
Mining, Quarrying	73.3	7.0	10.1	9.6	100.0
Construction	85.0	9.9	2.8	1.3	100.0
Gas, Electricity, Water	75.8	7.0	13.1	4.1	100.0
Distribution	83.8	9.2	4.7	3.3	100.0
All Index of Production Industries	81.6	8.9	5.6	3.9	100.0

Source: Employment Gazette May 1983.

As manufacturing industries and index of production industries had similar figures, 82% for pay costs and 9% for National Insurance Contributions were used.

To convert pay costs into total labour costs use a factor of 1.22 $\left(\frac{100}{82}\right)$

To convert pay costs into N.I. Contributions use a factor of 0.11 $\left(\frac{9}{82}\right)$

To convert pay costs into total wage cost excluding N.I. contributions use a factor of 1.11 $\left(\frac{91}{82}\right)$

Table D. Unemployed By Age In The U.K. 1981/82, Excluding Students (Thousands)

	20	20-24	25-34	35-44	45-54	55-59	60 +	Total *
Male	227	372	458	290	255	160	227	1989
Female	170	209	181	87	86	48	2	783

Source: Employment Gazette November 1983.

*

The unemployment totals in Tables A and D differ because they were abstracted from two different sets of Government statistics. The difference between the totals could be due to the criteria used for their compilation. The choice of unemployment total has only a marginal effect on subsequent calculations, and the conclusions and policy recommendations remain valid in either case.

Table E. Cost To The Employers Of Employing All The Unemployed Of Table D.

Male Youths	0.227 M	X	£3536	=	£ 0.80 B
Male Adults	1.762 M	X	£7384	=	£13.01 B
Female Youths	0.170 M	X	£2756	=	£ 0.47 B
Female Adults	0.613 M	X	£4472	=	£ 2.74 B

Total pay costs = £17.0 B

However, the Government would normally collect National Insurance Contributions from employers of about £1.9 B (0.11 x £17.0B) but to encourage the creation of jobs this could be relinquished. Other non-wage labour costs would increase employers costs to £18.9B (1.11 x 17.0) (see table C)

The £17.0B pay costs contain income tax and National Insurance payments by the employees. The pay cost excluding these taxes is obtained below.

Male Youths	0.227 M	X	£2706	=	£0.61 B
Male Adults	1.762 M	X	£5320	=	£9.37 B
Female Youths	0.170 M	X	£2199	=	£0.37 B
Female Adults	0.613 M	X	£3463	=	£2.12 B

Total take home pay = £12.5 B

Income Tax and National Insurance = £17.0 - £12.5 = £4.5 B
This also could be given up by Government fiscal measures to help industry.

$$\frac{\text{Take home pay}}{\text{Wage Costs}} = \frac{\text{£12.5 B}}{\text{£17.0 B}} = 74\% \quad \text{(c.f. table B)}$$

The cost to employers would be £18.9 - £4.5 B = £14.4 B

The cost per employee would therefore be £5190 per annum

(£14.4 B ÷ 2.772 M)

It was shown earlier that the average saving per year of removing one person off the unemployment register was abour £1590 in 1981.

The national cost of providing an extra job for the unemployed becomes :-

£5190 - £1590 = £3600 per annum

Of course, this cost depends on the Government introducing measures to keep constant its income from income tax and National Insurance payments by employers and employees as mentioned earlier.

Appendix 7

The difficulty of job sharing

Respondent's reasons

Question 19 of the questionnaire for those below State Pension age asks how easy it would be for them to share their jobs; 478 of them think it would be difficult and 360 of them offer reasons for their choice. The most common reason (53%) is that continuity of the work is important. However, examination of the reasons show that the majority of them do not realise that most jobs can be sub-divided into tasks and the tasks can be shared. By this means continuity of specialist tasks is preserved. Examples of adverse comments are as follows :- "It is impossible to share my job as I am in charge of a team of firemen" - apparently he did not realise that there would be another team of firemen with their own supervisor. "It would be impossible for someone to drive my lorry at the same time as me" - the intention, of course, is for another person to use the lorry but only when he is not working. "It would not be easy to take over someone else's sheet metal work" - therefore when he is away for the "weekend" the other worker would start on a new piece of sheet metal work. "It is difficult for someone to complete circuit wiring that another has started" - then why not leave it for him to finish after the "weekend" and let the job sharer get on with some other wiring. It is not just the poorer educated who consider job sharing is difficult, in fact, those with higher qualifications more often think this way. "It is impossible to share my job, I am a headteacher" - schools function now under an assistant when the head teacher is away; the only difference with job sharing is that this would happen more frequently . Several specialist teachers said that job sharing is difficult because a subject should not be taught to the same children by different teachers. However, most subjects can be sub-divided into "stand alone" sections, or the two teachers can teach different age groups. "It is difficult for a computer analyst to share his work". This is true but analysts usually have more than one task and the tasks can be shared. Similar comments can be made to the numerous designers, report writers, draughtsmen, research workers etc who cannot visualise job sharing as a possibility. One or two respondents could see beyond their current working arrangements to a more flexible approach to job structure, for example, "My project work needs continuity but we can share projects", "very difficult unless two managers for two sets of workers" and "difficult unless work done in parallel, then easy".

The second most frequent reason (18%) given is the problem of communicating with one's partner when a job cannot be easily sub-divided. With reasonable written records, which I suggest are frequently necessary for one's own use, continuity should not be a great problem. These records can be reinforced or even replaced by messages left on a tape recorder, which is now a very inexpensive item to purchase. However, typical comments are as follows :- "Knowledge of past events necessary for the work", "Difficult to inform someone else of the work position achieved up to the change over", "Difficult as only a mental record kept of decisions", "Impossible as it needs continuity in a bank to manage securities and deeds", "Very difficult for a computer room supervisor as he would never know what had been done while he was away, "Co-operation between co-workers would be unproductive work", "Difficult as there is a need to convey information on placing orders, obtaining prices etc" and "need time for liaison". In general properly recorded information would solve most of these problems. This would take some effort but any business run by memory alone is rarely going to be efficient.

Other reasons given (13%) emphasise the importance of client / customer relationships. "Business deals best handled by one person throughout", "Liaison / public relations needs single point of contact", "Sales management needs appreciation of customers needs", "The job required frequent contact with customers and have to be available", "Bank clients would not want to negotiate with two different people" and "cannot share each customer when giving a personal service but could share customers". This last example points the way to a solution similar to the first section; instead of sharing the work by separate tasks one shares the customers and clients. Messages can be taken from customers / clients when the usual contact is out and he can respond on his return - this happens now when a person is away due to illness or when he is on holiday.

About 7% of respondents who expect job sharing to be difficult are managers; this was anticipated to be a problem area. Representative comments are "One person must be accountable", "Very difficult for a manager to share his job", "Very difficult for an administrative manager of a multiple store to share the work; someone has

to be in charge", "One cannot have two managers one must be senior" and "Difficult for a manager but could be accomplished with a proper information system and men of similar outlook but one must be senior". This last comment provides a complete answer. The senior manager would make the major decisions and convey them to the deputy manager who would implement them and attend to the day to day business in the absence of his superior.

There are usually some irrelevant replies to questions in surveys and for this question there are 9%. Typical examples are as follows. "Impossible to share my job because of the very high standard of work" (by a manual worker), "The job entails collecting money daily; it would not be possible to pin point shortages" - why cannot daily totals be recorded, "as a catering manager comparisons would be drawn which would test the partnership", "Ministry Of Defence clearance is needed for the job", "I could not live on half my weekly wage" and "A machine setter needs skill and practice". It must be very rare to find a job that another person cannot do adequately after he has obtained satisfactory training and experience.

Apart from some of the managers there are few respondents who give irrefutable reasons why their jobs cannot be shared. Even with managers an assistant manager could often operate in his absence. This would not strictly be job sharing because the former would be senior and would make the more important decisions (see above). However, in practice, the effect would be equivalent to job sharing. In most other cases where job sharing was thought to be difficult it was usually easy to see how the difficulty could be overcome, as shown above. It may be that people will need to be shown how to replan working schedules to obtain the optimum advantages from job sharing before it is widely introduced.

It was obviously a fault in the questionnaire design that encouraged respondents to answer where they had insufficient knowledge of the subject but the question would have been too long had it explained matters more fully. This is another case where the views of responders might have been obtained more accurately by interview providing, of cource, no bias had been introduced in explaining the background to the question.

References

1. P.D.Anthony, The Ideology Of Work, Tavistock Publications Ltd, 1977

2. Finding Jobs For People , Federation Of Personnel Services, 1978

3. Department Of Employment Gazette, December 1978

4. E.Durkheim, The Division of Labour In Society , New York, Free Press of Glencoe, 1960.

5. J.Briggs, William Morris, Selected Writing & Designs Harmondsworth, Penguin, 1962

6. S.Parker, The Future Of Work And Leisure, MacGibbon and Kee, London 1971.

7. P.J.Sloane, Department Of Employment, Manpower Paper No. 13, 1975

8. A.Day, Leisure For Living , Observer, 17 May 1964

9. K.Denbigh, Science, Industry and Social Policy . Edinburgh, Oliver and Boyd, 1963.

10. M.Spicer, Men, Machines and Politics , Daily Telegraph 16 June 1978

11. S.De Grazia, Of Time, Work and Leisure , New York, Twentieth Century, 1962.

12. C.B.I. Resist Cut In The Working Week, Daily Telegraph 20 July 1978

13. Retire at 60 - T.U.C. IPCS Bulletin, 15 December 1983

14. T.Mann, 'What a compulsory 8-hour day means to Workers , Trade Union Paper, 1886. (Unreferenced Paper, TUC Library, Congress House, London.

15. P.F. Drucker, The Age Of Discontinuity , New York, Harper and Row, 1968

16. J. Stansell, The Social Impact of Microprocessors . New Scientist, 12 October 1978

17. R. Williams, Tomorrow At Work, BBC Publications, 1973

18. Commission Of The European Communities, Work-Sharing - Objectives and Effects. SEC (78) 740/2 1978

19. Prof. T. Stonier, The Daily Telegraph, 12 June 1978

20. E.V. Eves, Money and Your Retirement, Pre-Retirement Association, 1978

21. Parker, Thomas, Ellis and McCarthy. Effects of the Redundancy Payments Act . OPCS, 1969

22. Unreferenced Papers, Labour Research Department, TUC, Congress House, London.

23. A. Evans, Hours of Work in Industrialised Countries , International Labour Office, Geneva, 1975.

24. Redundancy Policies - A Study of Practice In 350 Companies , British Institute Of Management, 1974.

25. Department Of Employment Study, Measures To Alleviate Unemployment in the Medium Term - early retirement, Dept of Employment Gazette, March 1978.

26. A. Szalai, The Use Of Time , European Co-ordination Centre For Research and Documentation in Social Sciences, Mouton, The Hague, 1972

27. R. Poor, 4 days 40 hours; Pan Books,1972

28. W.A. Faunce, Work and Leisure, (Editor Smigel E), New Haven College and University Press, 1963

29. Department Of Employment Study. Measures To Alleviate Unemployment In The Medium Term - Work Sharing, Dept of Employment Gazette,April 1978

30. J. Kreps and J. Spengler, Report of the National Commission on Technology, Automation and Economic Growth, Appendix Vol 2, The Employment Impact of Technological Change, (Washington DC Government Printing Office), 1966

31. A. N. Oppenheim, Questionnaire Design and Attitude Measurement , Heinemann Educational Books Ltd, 1966

32. A. J. Bowley, Working class households in Reading, Journal Of The Royal Statistical Society, 1913

33. F. J. Roethlisberger and W. J. Dixon, Management and the Worker, Harvard University Press, 1939

34. C. A. Moser and G. Kalton, Survey Methods In Social Investigations, Heinemann Educational Books Ltd, London, 1971

35. S. R. Parker, Older Workers and Retirement, OPCS, 1980

36. OPCS Census, 1981, Berkshire Report Part 1

37. Survey for Social Affairs Department Of EEC by P. E. Consulting Group, 1977

38. This Green and leisured land, Economist P69, 18 September 1982

39. T. Stonier, The Wealth of Information, T. Methuen 1983

40. Times / ORC Survey, The Times, 23 June 1980

41. J. J. Spengler and J. M. Kreps, Employment, Income and Retirement Problems Of The Aged, Duke University Press, North Carolina, 1963

42. G. R. Jones, Work, Leisure And The Genesis Of Action, PhD Thesis University Of Lancaster 1979

43. Andreas W. Smith Making Light Of The Pensioner Burden Thing , The Daily Telegraph, 3 December 1983

44. What To Do When The Old Get Older , The Economist, 21 February 1981

45. J. Jolly, S. Creigh and A. Mingay, Age As A Factor In Employment , D.O.E. Research Paper No. 11, 1980

46. O.A.P. "Army" Plan Is Working, Daily Telegraph, 22 November 1982

47. P. Makeham and P. Morgan, Evaluation Of The Job Release Scheme, D.O.E. Research Paper No. 13, 1980

48. P. Makeham, Economic Aspects Of The Employment Of Older Workers", D.O.E. Research Paper No. 14, 1980

49. A. Heron and S. M. Chown, Ageing And The Semi-skilled; A survey of Manufacturing Industry On Merseyside, Medical Research Council, 1966

50. U. S. Department Of Labour, Older Worker Adjustment To Labour Market Practices, 1956

51. Canadian Department Of Labour, Age and Performance in the retail branch, 1959

52. J. M. Smith, Older Workers Retrained, New Society, July 1974

53. W. W. Daniel, A National Survey Of The Unemployed, Political and Economic Planning, October 1974

54. A. I. Harris and R. Clausen, Labour mobility in Great Britain, 1953-63, 1963

55. S. R. Parker, Carry On Working, Employment Gazette, January 1981

56. A. Carter, The British Medical Association, The Art Of Ageing: Family Doctor Publications, BMA 1983

57. W. Loving, The Choice Guide To Retirement, Pre-Retirement Association 1983

58. P. Brown, The Other Side Of Growing Older, Macmillan 1983

59. Shanas et al, Old People In Three Industrialised Societies, 1968

60. A. McGoldrick and C. L. Cooper, Voluntary Early Retirement - Taking The Decision, Employment Gazette, August 1980

61. A. Zabalza, C. Pissarides and M. Barton, Social Security and the choice between full-time work, part-time work and retirement, Centre For Labour Economics Discussion Paper No 55, August 1979

62. D. Jacobson, Attitudes towards work and retirement among older industrial workers in three firms, PhD. Thesis, 1970

63. J.A.S. Robertson, Does Job Release Reduce Unemployment, Employment Gazette, May 1982

64. B. Benjamin, Seminar On Pensions, Institute Of Actuaries, November 1983

65. J. Ellis, Daily Telegraph, 17 March 1983

66. DHSS, 'Growing Older', HMSO 1982

67. Early Retirement Rights Opposed In Whitehall, Daily Telegraph, 25 November 1983

68. D. Metcalf, Alternatives To Unemployment, Policy Studies Institute Paper 610, September 1982

69. R. H. Gordon and A. S. Blinder, Market Wages, Reservation Wages and Market Conditions, Journal of Public Economics, Vol 14, No. 2, October 1980

70. Occupational Pensions Board, Equal Status For Men and Women in Occupational Pension Schemes, HMSO, 1976

71. M. White, Shorter Working Time, Policy Studies Institute, Report No. 589, December 1980

72. A. Zabalza and D. Piachaud, Social Security and the Elderly; A simulation of Policy Changes, Journel of Public Economics 16 1981

73. French To Retire at 60, Daily Telegraph, 7 February 1983

74. Retire at 58, Bonn Subsidy, Daily Telegraph, 30 March 1984

75. Retirement a'la Carte, The Economist, 3 January 1981

76. Annual Abstract Of Statistics, Central Statistical Office, HMSO, 1984

77. Britain 1977 - An Official Handbook, HMSO, 1978

78. N. Lawson, Chancellor of Exchequer, Budget Speech, Hansard, 13 March 1984

79. Anglo-German Working Time Study, Anglo-German Foundation for the Study of Industrial Society, 1983

80. M. A. Bienefield, Working Hours In British Industry: An Economic History, Wiedenfeld and Nicolson, London 1972

81. The USA and UK On Holiday - Patterns, Determinants, Trends and Implications, Economist Intelligence Unit Report 148, 1983

82. W. H. Robbins, Minutes Of Evidence Taken Before "The Select Committee On Unemployment", 26 March 1980

83. M. White, Case Studies Of Shorter Working Time, Policy Studies Institute Report No. 597, October 1981

84. Shorter Working Hours Through National Agreements, Employment Gazette, October 1983

85. D. G. Leslie and J. Wise, The Productivity Of Hours, The Economics Journal, Vol 90, March 1980

86. J. J. Hughes, The Reduction In The Working Week: A Critical Look At Target 35, British Journal Of Industrial Relations, Vol 18 No. 3, November 1980

87. R. Allen, The Economic Effects Of A Shorter Working Week, Government Economic Service Working Paper No. 33, June 1980

88. German Living Standards Must Fall, Daily Telegraph, 20 January 1982

89. Hans Wants A 35 Hour Week, The Economist, 15 October 1983

90. Recovery Would Be Threatened By 35 Hour Week, Daily Telegraph, 30 March 1984

91. A. R. Cohen and H. Gadon, Alternative Work Schedules, Addison-Wesley Publishing Company, 1978

92. G. Golzen, The Slow Trend To Job-Sharing, Daily Telegraph, 27 September 1982

93. I. Kessler, IPCS Bulletin, 13 November 1983

94. A. Blandy, Alternate Week Working, Employment Gazette, March 1983

95. D. L. Bosworth and P. J. Dawkins, Work Patterns - An Economic Analysis, Gower Publishing Co. Ltd., 1981

96. R. Marris, The Economics Of Capital Utilisation - A Report On Multiple Shift Work, Cambridge University Press, 1964

97. J. A. S. Robertson, J. M. Briggs and A. Goodchild, D.O.E. Research Paper No. 30, July 1982

98. C. Tyler, Unions Crusade For The Shorter Working Week, Financial Times, 2 June 1978

99. Italian Plan For A 7-Day Fortnight, Daily Telegraph, 28 August 1980

100. Urban Crawl, The Economist, 11 August 1979

101. G. C. Winston, The Theory Of Capital Utilisation and Idleness, Journal of Economic Literature, 1974

102. M. F. Foss, The Utilisation Of Capital Equipment; Postwar compared to prewar, Surveys Of Current Business, June 1963, 43 (6)

103. The Government's Expenditure Plans 1984/85 to 1986/87 - CMD 9143-1, H.M. Treasury, February 1984

104. The Rise And Rise Of Unemployment, The Economist, 20 February 1982

105. K. Matthews, Jobless 1.3M Hard At Work, Daily Telegraph, 29 July 1983

106. Unemployment - turning too late,The Economist, 5 November 1983

107. M. Colledge and R. Bartholomew, The Long-term Unemployed, Some New Evidence, Employment Gazette, January 1980

108. Employing The Young, The Economist, 1 August 1981

109. EEC Unemployment - Proposals Yes, Jobs Maybe, The Economist, 30 April 1983

110. Jobs For The Boys And Girls, The Economist, 1 May 1982

111. Young People Leaving School, Employment Gazette, June 1983

112. Census 1981: Country Of Origin, Great Britain, HMSO, February 1983

113. Unemployment Review, OECD Observer, November 1982

114. S. Platt, BBC TV Broadcast, 2 February 1984

115. The Employment Imperative and Labour Market Policies, OECD Observer, September 1983

116. Second Tier Developing Countries, OECD Observer, December 1982

117. Labour Force Outlook For Great Britain, Employment Gazette, February 1984

118. Void Education Must Fill, Daily Telegraph, 26 September 1983

119. W. Godley, Report of the Cambridge Economic Policy Unit, April 1982

120. Jobs Stalemate To 1990 Forecast In NEDC Paper, Daily Telegraph, 12 April 1983

121. OECD Half-Yearly Economic Survey, July 1983

122. M. Weaver, Productivity Means Fewer Jobs Despite Economic Recovery, Daily Telegraph, 4 April 1984

123. M. Hellicar, The Amazing Future, Daily Mirror, 30 May 1979

124. Automation For The Small Man, The Economist, 23 August 1980

125. Y. Kuwakara, The Japanese Way Of Robot Life, Employment Gazette, August 1982

126. Japan Labour Bulletin, March 1983

127. Jobs And Technology, The Economist, 24 March 1984

128. Robots - The Users And Makers, The OECD Observer, No. 123, July 1983

129. R. J. Sleigh, A. Boatwright, P. Irwin and R. Stanyon, The Manpower Implications of Micro-electronic Technology, HMSO, January 1980

130. Death Sentence For Paper Shufflers, The Economist, 27 December 1980

131. E. Arnold, C. Huggett, P. Senker, N. Swords - Isherwood, and C. Z. Shannon, Micro-electronics And Women's Work In Britain, Science Policy Research Unit, University of Sussex, 1982

132. V. Williams, Employment Implications Of New Technology, Employment Gazette, May 1984

133. A. Berry, Blue Collars Of The Future Show Their Metal, Daily Telegraph, 19 March 1984

134. U. Huws, New Technology Homeworkers, Employment Gazette, January 1984

135. Where Will The Jobs Come From, The Economist, 3 January 1981

136. Economic Outlook 35, OECD, June 1984

137. Working Time Action Checklist, TUC, September 1981

138. Overtime Working, Employment Gazette, October 1983

139. Unemployment And Working Time, TUC Consultative Document, February 1981

140. Jobs - Facing The Future, CBI Discussion Document, January 1980

141. Five Year Programme By CBI To Increase Jobs By 1.5M, Daily Telegraph, 1 November 1982

142. 35-hour Week And Longer Holidays "Utmost Folly", Daily Telegraph, 9 November 1983

143. Concern Over Jobs, Daily Telegraph, 8 November 1983

144. More To Be Covered In Job Creation Schemes, Daily Telegraph, 25 July 1983

145. Lawson and TUC Agree On Job Studies, Daily Telegraph, 8 December 1983

146. Jobs Absorbed As Fast As They Are Being Created, Daily Telegraph, 4 June 1984

147. Britain To Oppose EEC Moves For 35-hour Week, Daily Telegraph, 4 June 1984

148. Bleak View Of The Economy By Pym,
Daily Telegraph,2 February 1982

149. T. Bedeman and G. Courtenay, Taking The Opportunity,
Employment Gazette, October 1982

150. Skill Shortage At The Top, The Economist, 14 April 1984

151. J. Crisp, Technology Body Chooses Four Projects,
Fimancial Times, 6 June 1984

152. Questions In The House, Employment Gazette, May 1984

153. C. Jenkins and B. Sherman, The Collapse Of Work,
Eyre Methuen 1979

154. M. Fogarty, Retirement Policy - The Next 50 Years,
Policy Studies Institute, 1982

155. F. Pym, Pym Urges Switch To Consensus,
Daily Telegraph, 18 July 1984

156. Prof. T. Rogers, Six Centuries Of Work and Wages, 1884
(unreferenced paper, TUC Library, Congress House, London)

157. Earth Resources Research, Daily Telegraph, 8 May 1978

158. C. Leicester, Unemployment, Public Enemy No. 1.
BBC 1, TV Documentary, 1977

159. A. E. Reed, Unemployment, A New Approach For The 80s, The
Institute Of Employment Consultants And The Federation of
Personal Services, 1979

160. Population Trends, Department of Employment Gazette,
September 1978

161. Government Job Creation Schemes, Daily Telegraph,
7 November 1978

162. F. Best, The Future Of Work, Prentice Hall Inc. 1973

163. J. Flemming, The Shorter Week - The Real Cost,
Management Today, November 1979

164. Sir R. Pennock, Job Creation Seen As Cruel Deceit,
Daily Telegraph, 7 November 1978

165. J. D. Hughes, Now Is The Time For The 35 Hour Week,
Trade Union Research Centre Paper, 1977

166. Life-Long Allocation Of Time, OECD Publication, December 1976

167. N. E. McIntosh, Recurrent or Continuing Education - Rhetoric
Or A Reality? The Association of Colleges For Further And
Higher Education, 1978

168. L. Edmunds, Retiring To Start A New Career,
Daily Telegraph, 13 January 1978

169. CBI Oppose 35-Hour Week, Daily Telegraph, 21 June 1978

170. A. Law, Just The Job - A Year Off Work, Daily Mirror, 4 May 1978

171. A. Maslow, Motivation And Personality, 2nd Edition, New York, Harper and Row Publishers Inc, 1954

172. Hours Of Work In U.K. Industry, Department Of Employment Gazette, March 1977

173. Britain 1983 - An Official Handbook, HMSO, 1984

174. More Work For The Service Sector And Longer Holidays For All, Employment Gazette, April 1984

175. Fowler Plans D.I.Y. Pensions, Daily Telegraph, 17 July 1984

176. Steamed Up Over Pensions, Daily Telegraph, 29 May 1984

177. Personal Pensions: A consultative document, DHSS, July 1984

178. Call For Retirement At 60, Financial Times, 31 May 1984

179. John Watson, M.P., How To Cut 600,000 Off The Dole Queue, Daily Telegraph, 13 July 1984

180. The Economy: Slowing Not Stopping, The Economist, 1 September 1984

181. O. Robinson and J. Wallace, Growth And Utilisation Of Part-time Labour In Great Britain, Employment Gazette, September 1984

182. Growth Of Real GDP / GNP In The OECD Area, OECD Observer, July 1984

183. R. Gilbert, An Eye For A Pretty Barmaid Is Not Enough, Mr Chancellor, Daily Telegraph, 15 October 1984

184. K. C. Hutchin, Half-time Working By Year 2000, Daily Telegraph, 12 October 1984

185. £170 Workers Vote For 5% Pay Cut, Daily Telegraph 5 November 1984